




UTICA TOOL CO., INC. Subsidiary  The Triangle Corporation

# Hand Tools

CATALOG UB-77HT

Price \$1.<sup>00</sup>



UTICA TOOL CO., INC. Subsidiary  The Triangle Corporation

## HISTORY OF UTICA

ORANGEBURG, S. C. 29115

Back in 1895, just three years before the Spanish-American war, the first forging hammers of Utica Drop Forge & Tool began their deep booming chorus which for over 80 years has told the world a factual story of forging skill.

From a modest beginning, with a handful of employees, has grown an organization producing the most complete line of hand tools accepted by industry and individuals throughout the world.

Utica Drop Forge & Tool was founded by W. Pierrepont White and Hugh White to manufacture "nippers". In 1907, the original plant burned to the ground, and in 1908, a complete line of pliers went into manufacturing under the new roof. Around 1923, the late W. E. Lewis bought control of the company, and in 1940, employment jumped from 130 to 535, while the company produced 5,000,000 armor piercing shell cap forgings, along with a variety of special tools such as 6" linemans pliers for the Defense Department.

In 1956, Utica Drop Forge & Tool was purchased by the Kelsey-Hayes Company of Detroit, Michigan, now a division of Fruehauf Co. Under the guidance of Kelsey-Hayes, it became a leading producer of specialized pliers for industry. It also became a high ranking manufacturer of commercial pliers, and adjustable wrenches.

In 1961, the Herbrand Automotive Tool Line, established in 1876, was purchased from Bingham-Herbrand Corporation of Fremont, Ohio. All machinery, inventory, and supervisory personnel at the Herbrand Plant were moved to Utica, New York.

Utica-Herbrand Tool Division of Kelsey-Hayes Company moved to Orangeburg in the summer of 1962 from Utica, New York.

Kelsey-Hayes added Bonney tools to the automotive line in April, 1964, when the line was purchased and moved from Alliance, Ohio, into a new addition to the Orangeburg Plant.

In September, 1967, Kelsey-Hayes sold the Hand Tool Division to The Triangle Corporation. At that time the Company was renamed Utica Tool Company, Inc. and is operated as a wholly owned Subsidiary of The Triangle Corporation with headquarters in Stamford, Connecticut.

Triangle acquired Torque Controls, Inc. in 1968 and moved all manufacturing facilities from South El Monte, California to Utica's Orangeburg factory in 1970. The Torque group manufactures a full line of click, dial, and pre-set torque wrenches, in addition to torque screwdrivers, testers and calibrators consisting of 81 different items sold under the name of Utica.

Utica has employment of approximately 800 people, constituting an annual payroll of over \$6,000,000.

The total number of standard pliers manufactured in our plant is approximately 200 standard models and over 1,000 custom models made to customers' specifications. Our automotive line includes over 1,200 different catalogue items. Utica Tool Company now produces an average of 50,000 tools per day and have over 2,000,000 parts in process on the floor. The above tools are sold under the brand names of Utica/Bonney.

Utica Tool Company believes that the fully air-conditioned building, approximately 300,000 square feet, the machinery it houses, and the people who work here are the finest in the world for the manufacturing of hand tools. We have a reputation of making the highest quality tools in the world today, and we intend to make that reputation even better.



## OUR CORPORATE PLEDGE TO YOU

We the employees of Utica Tool Company are dedicated to the achievement of our pride and satisfaction through the accomplishment of our company goals:

- Producing professional hand tools of high quality.
- Marketing our tools through the Automotive aftermarket, the Industrial market, and the International markets.
- Serving our customers in a reliable and responsible manner.

*And in so doing, to make a good and fair profit to the benefit of ourselves, our shareholders, and our community.*

Feel free to call on us at any time, for any reason. You will find Utica people a team you can depend on.

### UB-77HT CATALOG

UTICA/BONNEY is proud to bring you, our customers, this new UB-77HT combined hand tool catalog. This new catalog features a sub divided quick index page tab by section number that allows you to find the tool or tools you are looking for in quick time. (See Quick Index Below). The catalog illustrates our complete line of standard, special purpose, industrial and automotive type tools. For our complete line of hand tool boxes, professional roller cabinets and chests see Catalog UB 77-B.

Our NIDA-SIDA Manufacturer's Code No. 783894.

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### BONNEY BRAND (AUTOMOTIVE) DISTRIBUTION POLICY AND SALES REPRESENTATION

As in the past, Bonney will continue to recognize and support the traditional system of distribution through Warehouse Distributors and Jobbers. We are proud to number the leaders in these fields among our customers.

Bonney's Field Representatives and stocking Warehouses are to be found in every trading area. These Warehouses provide tool stocks at convenient, centrally located points. Our Field Representatives offer their cooperation in meeting every tool need.

### UTICA BRAND (INDUSTRIAL) DISTRIBUTION POLICY AND SALES REPRESENTATION

Utica products are sold through selected industrial distributors. Our distributors are Utica's greatest asset because of the value they add to our Marketing Program. Utica distributors make your job easier by performing services. Carrying inventories, Supplying product information, Extending Credit, paperwork and transportation.

Rendering emergency assistance to minimize down time.

Utica distributors reduce our selling cost and allow us to do the work we do best, the design and manufacture of quality hand tools.

Full information regarding our distribution, sales representation, tools or tool problems can be secured by writing or calling the address below: Attn. Automotive Sales Manager or Attn. Industrial Sales Manager.



**UTICA TOOL CO., INC.**

Subsidiary of The Triangle Corporation

Orangeburg, South Carolina 29115

803/534-7010

Telex No. 57-3498

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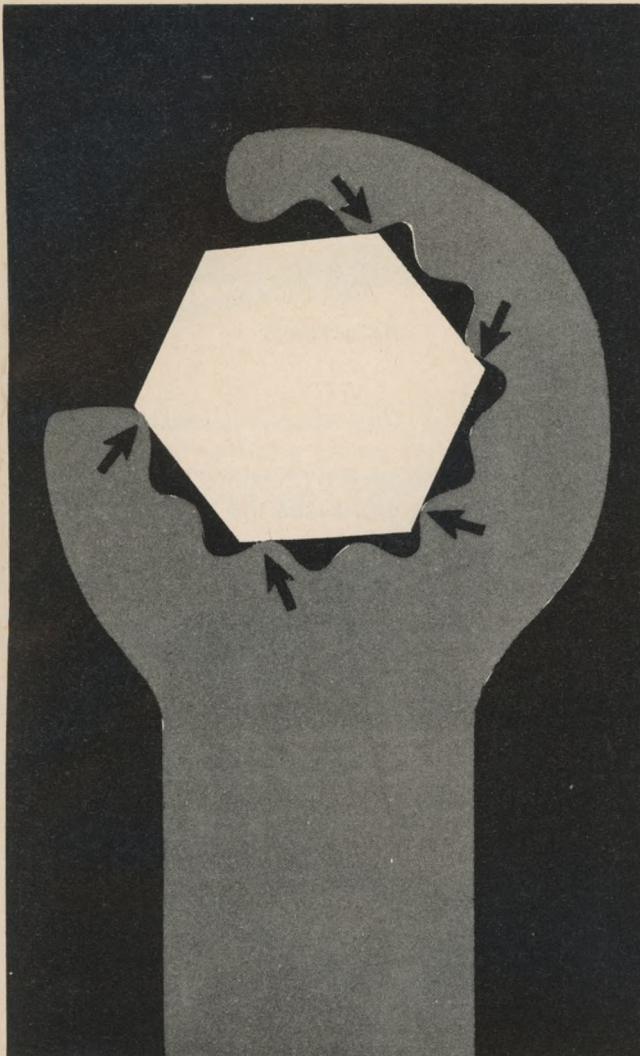
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## Loc-Rite® and only Loc-Rite wrenches use this entirely new turning principle



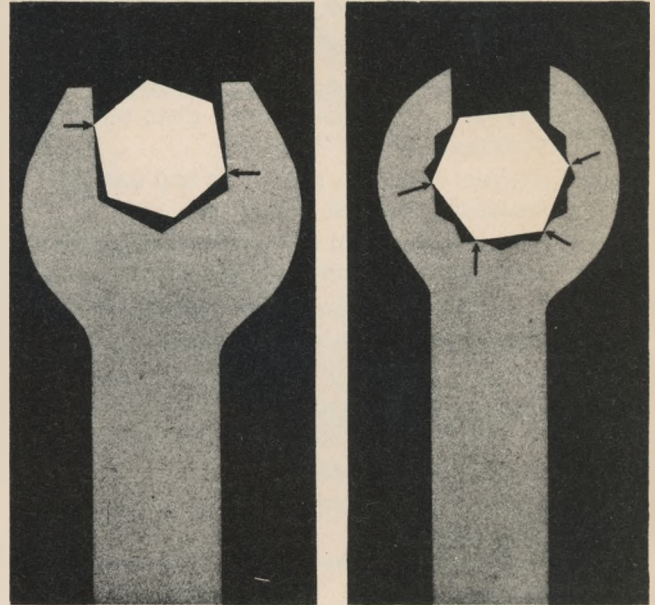
Utica Loc-Rite wrenches and sockets work on a revolutionary principle that prevents leaks, fastener damage, distortion, or false torque readings. Instead of tightening by pressing inward, Loc-Rite wrenches exert pressure tangentially, from the sturdy hex flats around the shoulder of the fitting.

Because a Loc-Rite wrench bears on hex flats instead of hex points, there is no damage to fasteners, no out-of-round condition developed even during high-torque wrenching of thin wall fasteners or soft metals. So there is no galling of threads, no undue thread friction, no false torque readings—and no leakage from incorrectly tightened fittings.!

Another advantage of Loc-Rite tangential force is that you can use a Loc-Rite wrench to loosen and possibly re-use a fitting so badly damaged that conventional wrenches will no longer turn it! Even if the hex points have been crushed, a Loc-Rite wrench will work, since it snugs deep into hex flats.

Utica Loc-Rite tools meet the most exacting assembly and repair needs in aerospace, hydraulics, automotive—wherever performance and dependability count. Once you try a Loc-Rite wrench or socket, you'll never want to use conventional tools again!

**All conventional wrenches can crush fittings as they tighten them.**



*\*PATENT NO. 3125910*

All conventional wrenches use these outmoded crushing principles—only Utica-Bonney Loc-Rite tools apply a new, exclusive wrenching concept.

Look at the conventional open end wrench (left). When used, it exerts inward force at two points on the fitting. Result: hex points can be rounded off as force is applied . . . the wrench may slip, and the fasteners may not attain the necessary torque. The uneven pressure exerted by this old-fashioned wrench can also gall threads and sealing surfaces, causing leakage.

The conventional flare nut wrench (right) is a slight improvement. It bears on four points, not two. But the basic problem is the same: it bears on the vulnerable hex points, to turn with an inward crushing force that can damage fasteners during severe application.

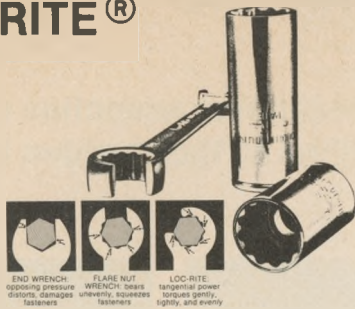
A false torque-tension relationship may also be created. Fasteners torqued with conventional wrenches may be damaged before desired readings are achieved . . . or the apparent "tightness" of distorted fasteners may result in leakage when the distorted fastener returns toward "round" after the wrench is disengaged.

When the applied force is really a crushing force directed toward the center of the fitting, the result may be out-of-roundness or mutilation. Such a fitting, once tightened imperfectly, may prove almost impossible to remove if heads have been damaged. Thin-wall fittings are especially susceptible to galling during tightening, which can cause abnormal thread friction, false torque readings, and internal damage.



# TOOL HIGHLIGHTS

## LOC-RITE®



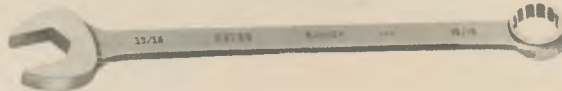
**no other wrenches can duplicate**

- Prevent mutilation and distortion of fasteners.
- Prevent hydraulic, pneumatic and gas leaks caused by fastener distortion.
- Remove bolts and nuts even if corners are damaged by conventional wrenches.
- Permit accurate torque tension relationship.
- Provide up to 20% more clamping force.
- Reduce warranty costs and downtime caused by malfunction of vital parts . . . reduce customer complaints and ill-will.
- Reduce service call-backs.
- Permit frequent re-use even of damaged fasteners.

## WRENCH FINISHES



**FULL POLISH**

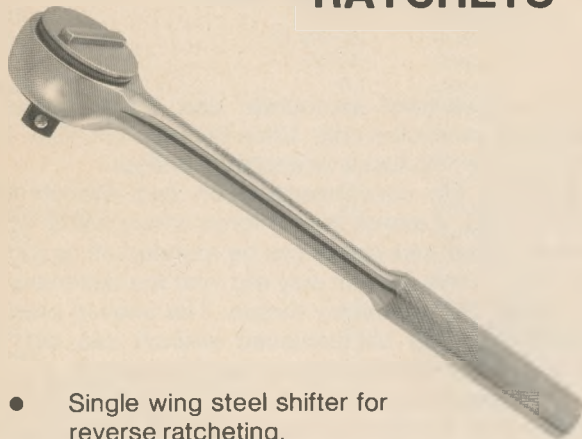


**SATIN FINISH**

**FULL POLISH:** This wrench is ideal for the professional who wants a mirror finish tool. A series of specialized finishing operations preceding plating produces the finish on this high quality tool line.

**SATIN FINISH:** This finish is preferred by some professionals because of the unpolished handle giving them a slip resistant gripping area. This finish is our more economically priced line.

## REVERSIBLE RATCHETS



- Single wing steel shifter for reverse ratcheting.
- Double pawl construction.
- Knurled handle provides safe grip.
- Single unit gear assembly. Entire mechanism easily removed for cleaning.
- (36) Teeth Give (72) Tooth Action with our double pawl. This is equivalent to 5° of arc-indexing.
- Finish: Nickel chrome plate over full polish.

## ADJUSTABLE WRENCHES



- Re-designed movable jaw has maximum bearing and strength with minimum side play.
- Hardened knurl for fingertip adjustment of jaw opening.
- Nickel chrome plate for corrosion free service.
- Optional cushion handles for comfort.

## TRADEMARKS

Following are the registered trade marks under which we manufacture and sell our products:

UTICA No. 523, 494

UTICA/BONNEY CAM-LOCK

RIB JOINT No. 673, 479

BONNEY No. 68, 202

STRIPWRIGHT No. 875, 596

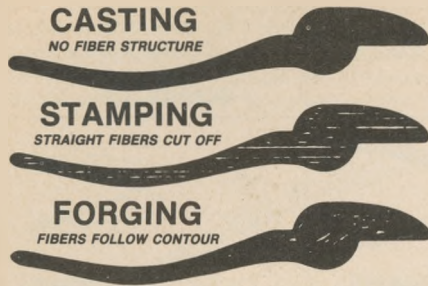
LOCRITE No. 789, 030

WOBBLE DRIVE No. 565, 137



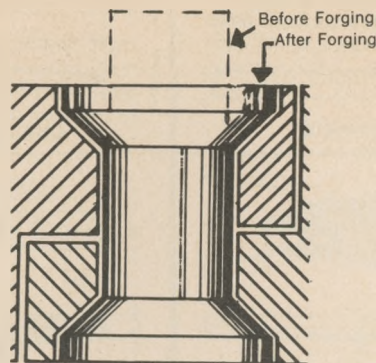
# UTICA PLIERS

## FORGINGS



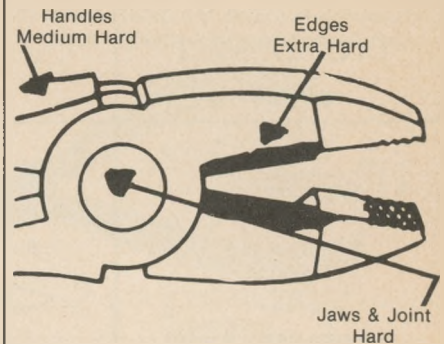
Forgings are best. Utica has had many years of forging experience in which to perfect the art of forging. Forged tools are stronger because the grain of the metal follows the contour of the tool. See illustration.

## RIVET AND JOINT



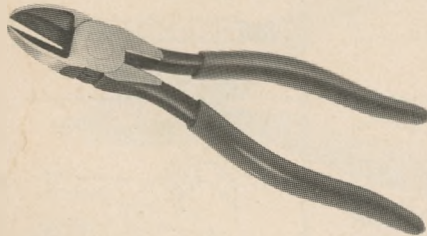
The plier joint is by far the most important part of the plier. If the joint is loose, the edges will not align and will quickly dull or chip. Utica utilizes a forged rivet which gives the toughness of a forging and a precision fit far superior to the machined rivet method.

## HEAT-TREATING



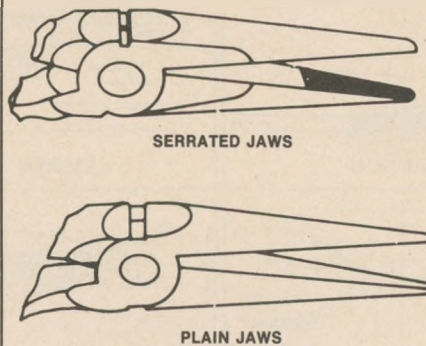
Utica utilizes a unique heat treating method known as induction hardening. This method allows selective hardening to insure hard edges, tough jaws and elastic handles.

## FINISH & CUSHION GRIPS



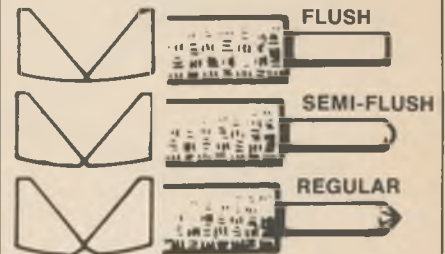
Utica offers many different finishes allowing cost savings to you. Comfort fitting plastisol handles are offered in many colors. Red is standard. Dielectric value not guaranteed.

## SERRATED OR SMOOTH JAWS



Utica pliers are available with serrated jaws for the sure grip application and smooth radiused jaws for delicate no-nick application.

## CUTTING EDGES



Utica Offers Three Edge Types.

FLUSH - For Close Flat Cuts - Soft Wire Only.

SEMI-FLUSH - For close cutting of medium hard wire.

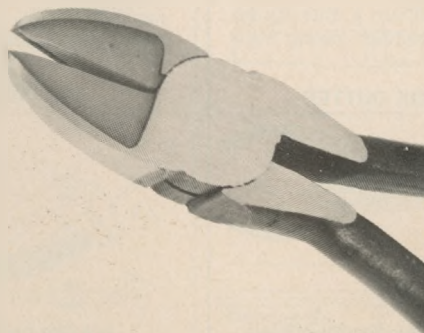
REGULAR - For cutting hard wire. Not for very high tensile wire.

## RIB-JOINT UNDERCUT



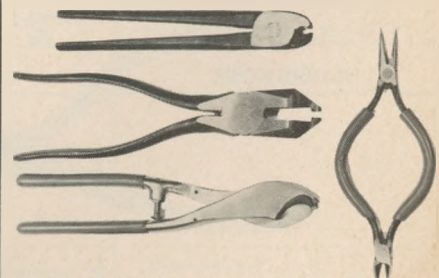
Utica's rib joint pliers incorporate a special machined undercut beneath the bottom edge of the jaw position rib. This undercut allows positive non-slipping and gripping action under applied pressure.

## N-THROAT



Our N Throat plier manufacturing process allows us to affix a specially formulated plastisol cushion to the jaws of many standard line or custom pliers by using a special oven baking process. This safety device allows pliers to retain short end of wire during and after cutting, preventing wire from flying into delicate or critical work areas.

## CUSTOM TOOLS

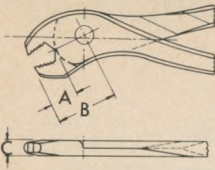
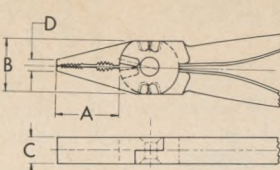
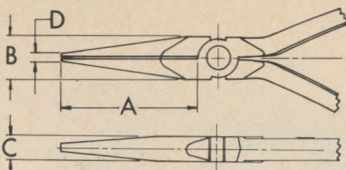
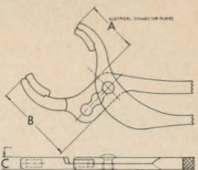
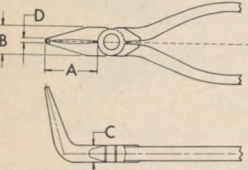
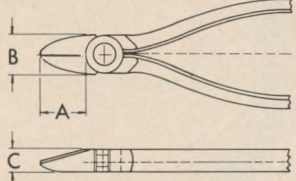
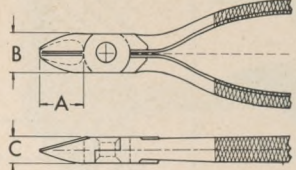
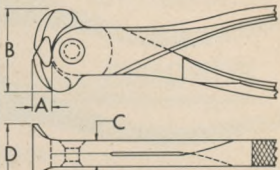
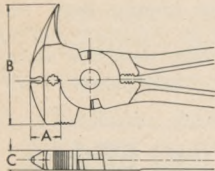
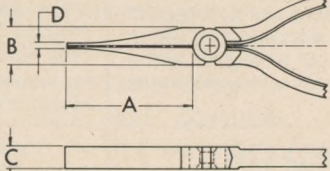
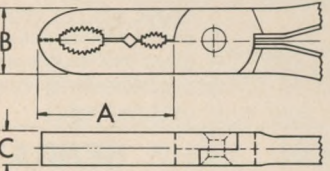
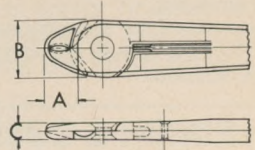
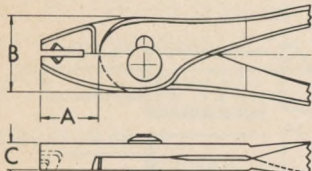
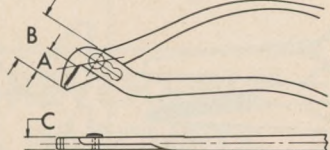
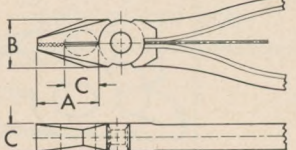
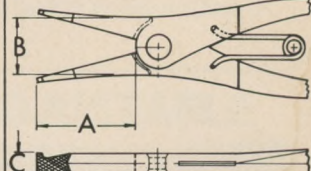
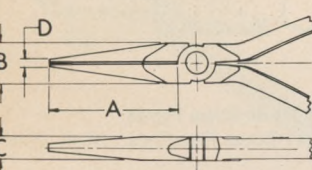
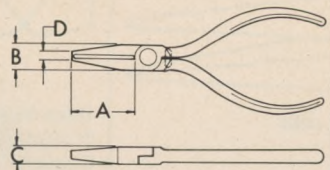
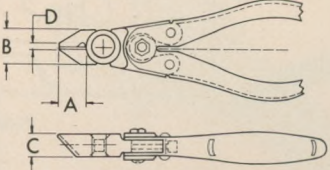
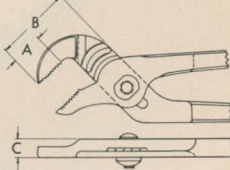
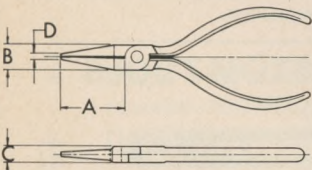
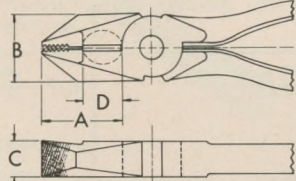
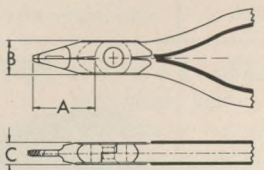
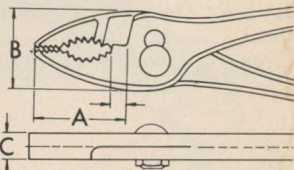
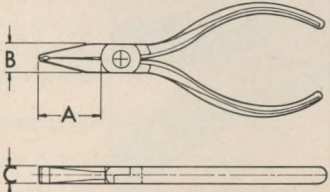
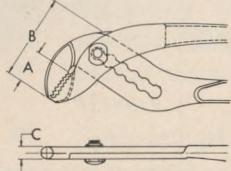
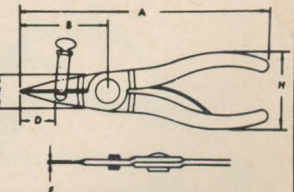


We solicit Special tool inquiries covering your requirements for Special or Custom Built tools.

Full information regarding Special tools or tool problems may be secured from Utica Tool Co. Inc., Cameron Road, Orangeburg, South Carolina 29115. Phone 803-534-7010, Telex: 57-3498. Attn.: Industrial Sales Manager.



# PLIER PROFILES AND DIMENSION GUIDE

			
BATTERY	BUTTON'S	CHAIN NOSE	CONNECTOR
			
CURVED NEEDLE NOSE	DIAGONAL	ELECTRICIANS'	END CUTTERS
			
FENCE	FLAT NOSE	GAS AND BURNER	HOG RING
			
HOSE CLAMP	IGNITION	LINEMEN'S	LOCK RING
			
NEEDLE NOSE	NIPPERS	PRINTED CIRCUIT	RIB JOINT
			
ROUND NOSE	SIDE CUTTER	SKINNING	SLIP JOINT
			
	HEAT COIL EXTRACTING	WATER PUMP	LOCK RING

## PART NO. LETTER CODES FOR PLIER FEATURES

Refer to current price sheet for availability

A - TENITE HANDLE  
C - CUSHION HANDLES  
F - FULL POLISH  
G - PLAIN UNSCORED JAWS  
H - FINE SERRATED JAWS

J - FLUSH EDGES  
K - SEMI-FLUSH EDGES  
R - RADIUS ON JAWS  
S - COIL SPRING IN HANDLE  
N - CUSHION THROAT



## No. 34 LONG HANDLE DIAGONAL CUTTING PLIER

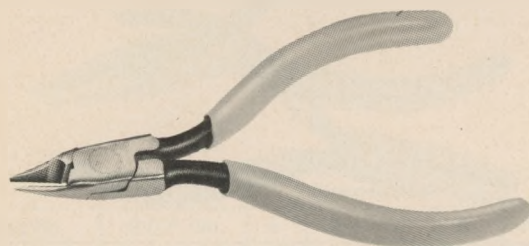
Hand honed semi-flush edges, thin narrow nose and long reach handles make this the ideal plier for those tough applications in hard to reach areas where a clean cut is required. Cuts soft drawn wire from No. 30 to No. 20 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
34-6 CFKS	13246-00	1 5/32	2 7/64	7/32	.172 lb.

## No. 38 DIAGONAL CUTTING PLIER

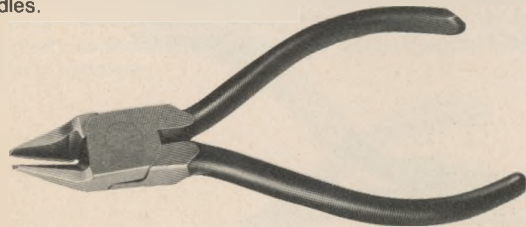
Semi-flush edges plus extra thin nose are ideal for work in congested areas. The perfect tool for printed circuit and telephone work. Cuts soft drawn wire from No. 28 to No. 22 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
38-4 CKS	13224-11	1 5/32	2 7/64	7/32	.104 lb.

## No. 42 DIAGONAL CUTTING PLIER

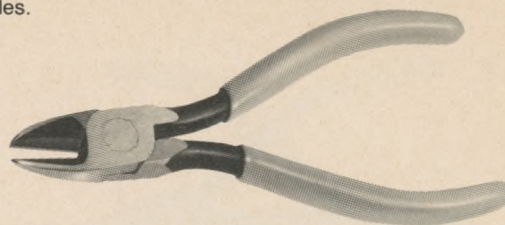
Hand honed flush-edge with tapered nose. Heavy pattern joint for long life. Ideal for printed circuit and other electronic applications. Cuts soft drawn wire from No. 30 to No. 19 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
42-4 J	13124-00	5/8	9/16	1 1/32	.177 lb.
42-4 JC	13124-10	5/8	9/16	1 1/32	.177 lb.
42-4 JCS	13124-11	5/8	9/16	1 1/32	.177 lb.
42-4 JCSF	13124-22	5/8	9/16	1 1/32	.177 lb.

## No. 44 DIAGONAL CUTTING PLIER

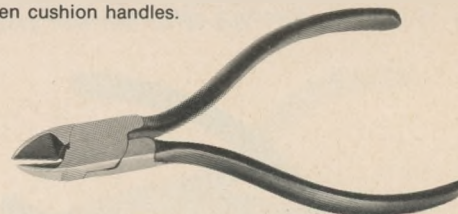
Hand filed semi-flush edges plus thin narrow nose make this plier ideal for trimming printed circuit boards and electronic components, cuts No. 28 to No. 12 gauge. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
44-5 K	13145-00	3/4	5/8	3/8	.250 lb.
44-5 KC	13145-10	3/4	5/8	3/8	.250 lb.
44-5 KCS	13145-11	3/4	5/8	3/8	.250 lb.
44-5 KCSF	13145-22	3/4	5/8	3/8	.250 lb.

## No. 46 DIAGONAL CUTTING PLIER

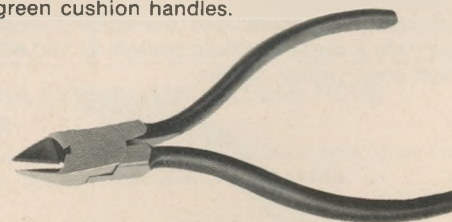
Hand filed semi-flush edges plus thin narrow nose make this plier ideal for close-quarter electronic circuitry work, also very popular in the telephone industry. Cuts hard drawn wire from No. 28 to No. 22 gauge with a maximum tensile strength of 150,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
46-4 K	13214-00	1 5/32	2 7/64	1/4	.125 lb.
46-4 KC	13214-10	1 5/32	2 7/64	1/4	.125 lb.
46-4 KCF	13214-12	1 5/32	2 7/64	1/4	.125 lb.
46-4 KCS	13214-11	1 5/32	2 7/64	1/4	.125 lb.
46-4 KCSF	13214-22	1 5/32	2 7/64	1/4	.125 lb.
46-4 CSJ	13214-25	1 5/32	2 7/64	1/4	.125 lb.

## No. 47 DIAGONAL CUTTING PLIER

Hand honed flush-edge for close burr free cutting plus the thin pointed nose are ideal for all around cutting of electronic component leads. Cuts soft drawn wire from No. 30 to No. 20 gauge with a maximum tensile strength of 90,000 psi. Standard light green cushion handles.



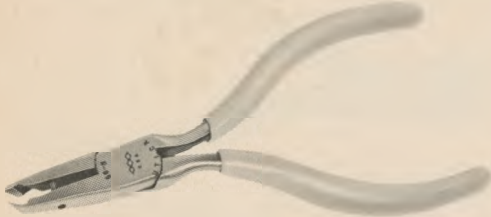
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
47-4 J	13234-00	1/2	2 7/64	9/32	.104 lb.
47-4 JC	13234-10	1/2	2 7/64	9/32	.104 lb.
47-4 JCS	13234-11	1/2	2 7/64	9/32	.104 lb.
47-4 JCSF	13234-22	1/2	2 7/64	9/32	.104 lb.
47-5 J	13235-00	2 3/32	5/8	3/8	.233 lb.
47-5 JC	13235-10	2 3/32	5/8	3/8	.233 lb.
47-5 JCF	13235-11	2 3/32	5/8	3/8	.233 lb.
47-5 JCSF	13235-22	2 3/32	5/8	3/8	.233 lb.



# ELECTRONIC PLIERS

## No. 66 TIP CUTTING PLIER

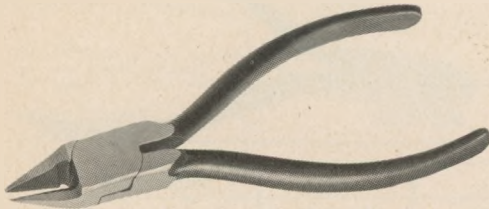
Hand honed flush edges with alignment pin for true flush cutting. Special long nose design and angle of edge allows comfortable tip cutting position. Cuts soft drawn wire from No. 30 to No. 20 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
66-5 CJS	15165-00	$\frac{29}{32}$	$\frac{1}{2}$	$\frac{19}{64}$	.133 lb.
66-5 CJSF	15165-22	$\frac{29}{32}$	$\frac{1}{2}$	$\frac{19}{64}$	.133 lb.

## No. 141 DIAGONAL CUTTING PLIER

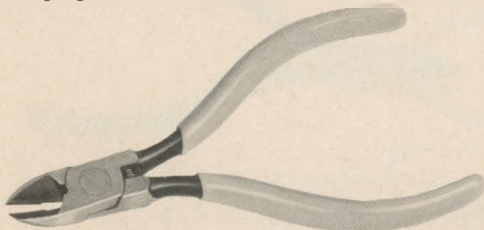
Hand honed flush edges and tapered nose are ideal for electronic and telephone work where flush cuts are essential. Cuts wire from No. 30 to No. 20 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
141-5 J	13175-00	$\frac{25}{32}$	$\frac{5}{8}$	$\frac{25}{64}$	.250 lb.
141-5 JC	13175-10	$\frac{25}{32}$	$\frac{5}{8}$	$\frac{25}{64}$	.250 lb.
141-5 JCS	13175-11	$\frac{25}{32}$	$\frac{5}{8}$	$\frac{25}{64}$	.250 lb.

## No. 146 DIAGONAL CUTTING PLIER CARBIDE EDGES

Precision ground carbide semi-flush edge designed especially for long life in the electronics field for trimming of component leads. Will cut nickel, kovar, dumet to .030 dia., and other abrasive wires up to No. 22 gauge having a maximum tensile strength of 150,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
146-4 CKS	13164-00	$\frac{1}{2}$	$\frac{27}{64}$	$\frac{17}{64}$	.125 lb.

## No. 347 SLIM-LINE DIAGONAL CUTTING PLIER

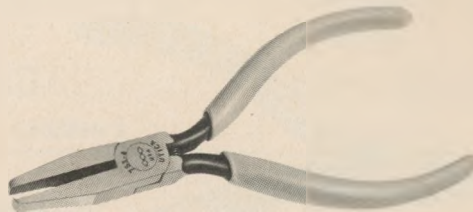
Hand honed flush edge with very small joint and nose for areas of limited accessibility. Especially designed for intricate electronic modules and circuitry. Cuts soft drawn wire from No. 30 to No. 20 gauge with a maximum tensile strength of 90,000 psi. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
347-4 CFJS	13847-00	$\frac{3}{8}$	$\frac{23}{64}$	$\frac{7}{32}$	.075 lb.

## No. 753 TRANSVERSE END CUTTER

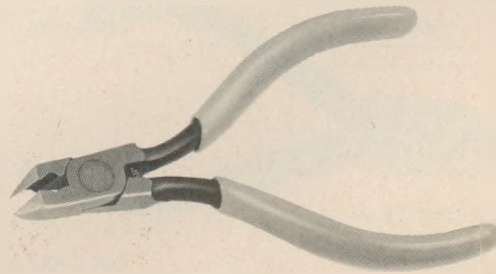
Semi-flush ground cutting edges allow close cutting of component leads. Ideal for cutting in very close quarters where other cutters cannot reach. Cuts soft copper wire up to No. 20 gauge. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
753-4 CKS	15134-00	1	$\frac{7}{16}$	$\frac{17}{64}$	.146 lb.
753-4 CKSF	15134-22	1	$\frac{7}{16}$	$\frac{17}{64}$	.146 lb.

## No. 754 DIAGONAL CUTTING PLIER

Flush cutting edges for perfect cuts. 60° angle of jaws allows maximum accessibility when trimming component leads and welded modules. Allows positive tip cutting in confined areas. Cuts nickel ribbon and copper wire up to No. 20 gauge. Standard with light green cushion handles.



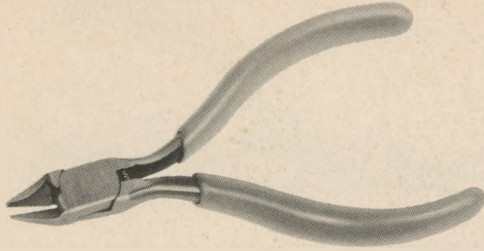
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
754-4 CJS	15226-00	$\frac{7}{16}$	$\frac{27}{64}$	$\frac{3}{8}$	.125 lb.
754-4 CJFS	15226-22	$\frac{7}{16}$	$\frac{27}{64}$	$\frac{3}{8}$	.125 lb.



# ELECTRONIC PLIERS

## No. 792 TIP CUTTING PLIER

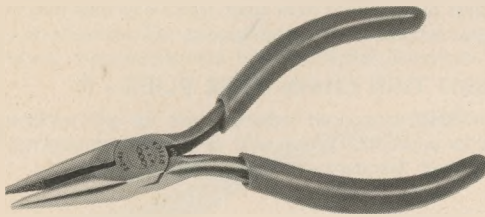
For very fine wire. The full-flush cutting edge is designed to cut at extreme tip. Tapered jaws allows cutting in confined areas. Recommended for No. 24 soft copper wire or smaller. Honed cutting edges are sharp and accurate. They will stay sharp longer because they are induction hardened. Beautiful precision finish. Standard with light green cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
792-4 CFJS	13254-00	1/2	27/64	17/64	.104 lb.

## No. 22 SHORT CHAIN NOSE PLIER

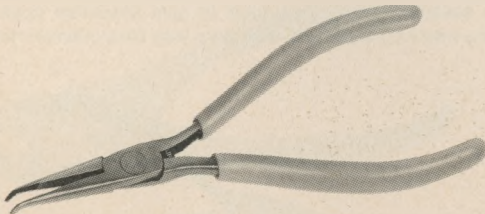
Used for precision pickup, looping and twisting. Standard with red cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
22-4 1/2 G	16111-00	1 1/16	7/16	9/32	1/8	.146 lb.
22-4 1/2 GC	16111-10	1 1/16	7/16	9/32	1/8	.146 lb.
22-4 1/2 GCS	16111-11	1 1/16	7/16	9/32	1/8	.146 lb.
22-4 1/2 GCSF	16111-22	1 1/16	7/16	9/32	1/8	.146 lb.
22-4 1/2 HCS	16111-24	1 1/16	7/16	9/32	1/8	.146 lb.
22-5 H	16115-00	1 1/8	9/16	21/64	1/8	.208 lb.
22-5 HC	16115-10	1 1/8	9/16	21/64	1/8	.208 lb.
22-5 HCS	16115-11	1 1/8	9/16	21/64	1/8	.208 lb.
22-6 H	16116-00	1 5/16	1 1/16	7/16	1/8	.333 lb.
22-6 HC	16116-10	1 5/16	1 1/16	7/16	1/8	.333 lb.

## No. 25 BENT CHAIN NOSE PLIER

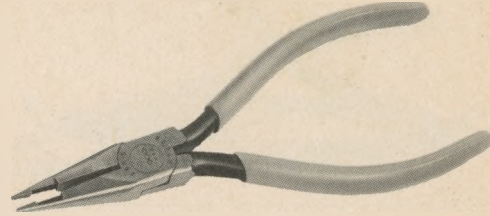
Precision jaws are with radiused edges. Jaws are bent at 60° for gripping, twisting and looping fine wires in confined areas. Designed especially for very fine wire. Standard with blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
25-5 CFHS	16135-00	1 1/8	13/32	1/4	3/64	.146 lb.
25-5 CFGRS	16135-43	1 1/8	13/32	1/4	3/64	.146 lb.

## No. 265 WIRING PLIER WITH CUTTER

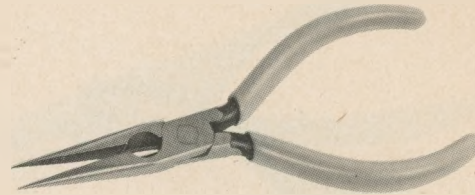
Precision knife and anvil type edge plus serrated tips are ideal for delicate electronic sub assembly work where cutting, looping and twisting of solid or stranded wire is essential. Bends wire to No. 16 gauge. (TS 90,000 psi) cuts wires from No. 24 gauge to No. 19 gauge. (TS 90,000 psi). Standard with beige cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
265-5 CS	14855-00	1 1/8	9/16	5/16	1/16	.146 lb.

## No. 654 LONG CHAIN NOSE WITH SIDE CUTTER

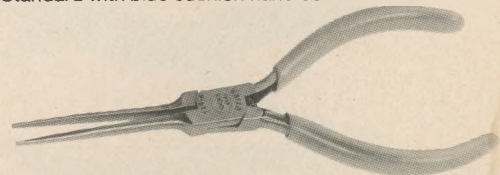
Spring tempered fine serrated jaws with extra-hardened jaw surfaces and cutter edges are ideal for electronic sub assembly work. Cuts soft drawn wire from No. 26 to No. 14 gauge with a maximum tensile strength of 90,000 psi. Cat. No. 654-5 1/2 comes with beige handles only. All others red handles.



Catalog No.	E.D.P. No.	Dimensions					Wt. Ea.
		A	B	C	D	E	
654-5 1/2	14215-00	1 25/32	1/2	19/64	7/16	3/64	.187 lb.
654-5 1/2 C	14215-10	1 25/32	1/2	19/64	7/16	3/64	.187 lb.
654-5 1/2 CS	14215-11	1 25/32	1/2	19/64	7/16	3/64	.187 lb.
654-5 1/2 CSF	14215-22	1 25/32	1/2	19/64	7/16	3/64	.187 lb.
654-6	14216-00	2 1/8	5/8	3/8	7/16	1/8	.292 lb.
654-6 A	14216-75	2 1/8	5/8	3/8	7/16	1/8	.292 lb.
654-6 C	14216-10	2 1/8	5/8	3/8	7/16	1/8	.292 lb.
654-6 CS	14216-11	2 1/8	5/8	3/8	7/16	1/8	.292 lb.
654-7	14217-00	2 1/10	21/32	3/8	7/16	1/8	.354 lb.
654-7 C	14217-10	2 1/10	21/32	3/8	7/16	1/8	.354 lb.
654-7 CS	14217-11	2 1/10	21/32	3/8	7/16	1/8	.354 lb.

## No. 714 EXTRA LONG NEEDLE NOSE PLIER

Long nose ideal for working in confined areas. Used for forming connection. Standard with blue cushion handles.



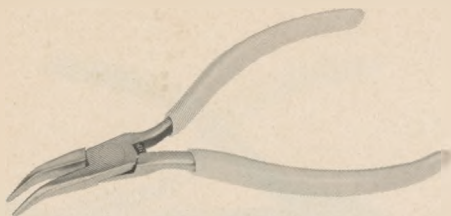
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
714-6 CFGRS	16546-00	2 5/16	1/2	19/64	1/16	.168 lb.



# ELECTRONIC PLIERS

## No. 729 CURVED CHAIN NOSE PLIER

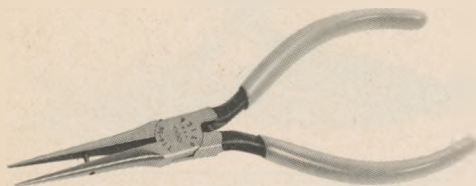
Extra fine curved nose for forming and bending small wire; used for all precision work. Radiused smooth jaws prevent nicking of wire. Standard with blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
729-4 CS	16142-00	$2\frac{3}{32}$	$\frac{3}{8}$	$\frac{7}{32}$	$\frac{1}{16}$	.08 lb.
729-4 CSF	16142-22	$2\frac{3}{32}$	$\frac{3}{8}$	$\frac{7}{32}$	$\frac{1}{16}$	.08 lb.

## No. 774 WIRING AND PICK-UP PLIER

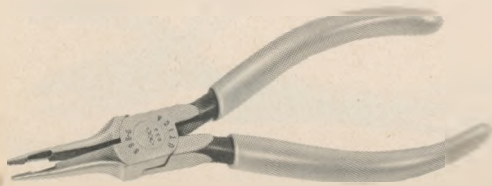
Precision unscored jaws, radiused edges and long thin nose are designed especially for looping, twisting, bending and picking up the finest wire used in the electronics industry. Dowel pin holds jaws in perfect alignment. Standard with blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
774-5½ CGS	16585-00	1¾	½	$1\frac{9}{64}$	$\frac{3}{64}$	.168 lb.
774-5½ CHS	16585-34	1¾	½	$1\frac{9}{64}$	$\frac{3}{64}$	.168 lb.

## No. 896 WIRING PLIER WITH CUTTER

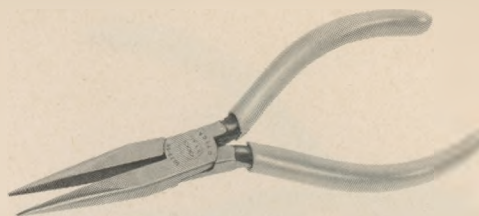
Precision knife and anvil type edge serrated tips and specially shaped nose are ideal for radio and TV sub assembly work. For cutting, looping and bending soft drawn wire. Cuts wire from No. 24 to No. 19 gauge. Bends up to .062" diameter with a maximum tensile strength of 90,000 psi. Standard with beige cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
896-6 CS	14536-11	$1\frac{1}{16}$	$\frac{1}{16}$	$\frac{7}{16}$	$\frac{1}{16}$	.333 lb.

## No. 1033 LONG CHAIN NOSE PLIER

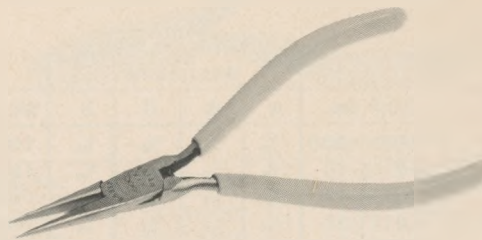
Spring tempered jaws are specially designed for gripping small wire and components without damaging. Cat. No. 1033-5½H comes with blue handles. All others are red.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
1033-5½H	16215-00	$1\frac{25}{32}$	$\frac{1}{2}$	$1\frac{9}{64}$	$\frac{3}{64}$	.187 lb.
1033-5½ HC	16215-10	$1\frac{25}{32}$	$\frac{1}{2}$	$1\frac{9}{64}$	$\frac{3}{64}$	.187 lb.
1033-5½ HCS	16215-11	$1\frac{25}{32}$	$\frac{1}{2}$	$1\frac{9}{64}$	$\frac{3}{64}$	.187 lb.
1033-6	16216-00	$2\frac{1}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{1}{8}$	.292 lb.
1033-6 C	16216-10	$2\frac{1}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{1}{8}$	.292 lb.
1033-7	16217-00	$2\frac{1}{16}$	$2\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{8}$	.354 lb.
1033-7 C	16217-10	$2\frac{1}{16}$	$2\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{8}$	.354 lb.

## No. B-5317 THIN CHAIN NOSE PLIER - 5"

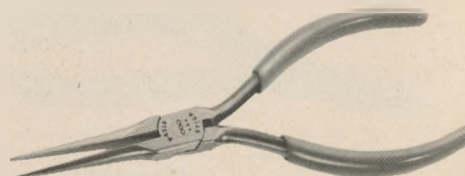
Extra thin nose. Unscored radiused jaws for sub miniature work. Designed for application where wire or component must not be nicked or scratched. Standard with blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
B5317 CFGRS	75317-00	1 ⅞	$1\frac{13}{32}$	$\frac{1}{4}$	$\frac{5}{64}$	.146 lb.

## No. B-5318 NEEDLE NOSE PLIER - 5½"

Long needle nose jaws are radiused and unscored for delicate electronic assembly work. Designed to give maximum holding without marking wire or component. Standard with blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
B5318	75318-00	1¾	½	$\frac{1}{4}$	$\frac{3}{64}$	.144 lb.



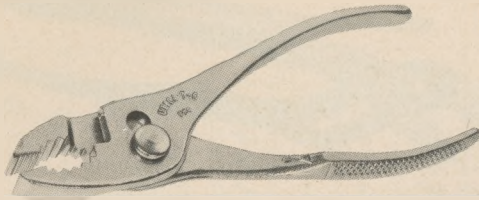
# PLIERS

## No. 7 COMBINATION SLIP JOINT PLIER CHROME PLATED

Fed. Spec. GGG-P-00471

Type II, Class 2, Style A (6", 8" & 10" sizes).

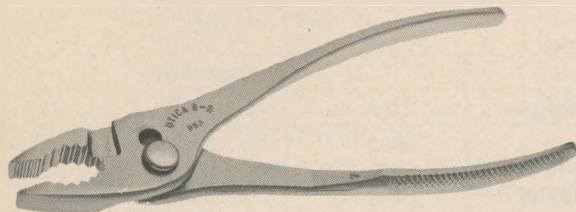
A quality tool, slip joint style with wire cutter. Knurled handles. Drop forged. Nickel Chromium plated.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
7-6	11126	1 $\frac{3}{32}$	1 $\frac{1}{16}$	1 $\frac{1}{32}$	.417 lb.
7-8	11128	1 $\frac{5}{16}$	1 $\frac{1}{4}$	7 $\frac{1}{16}$	.646 lb.
7-10	11120	1 $\frac{33}{64}$	1 $\frac{1}{2}$	2 $\frac{3}{4}$	1.063 lb.

## No. 8 COMBINATION SLIP JOINT PLIER POLISHED AND CHROME PLATED

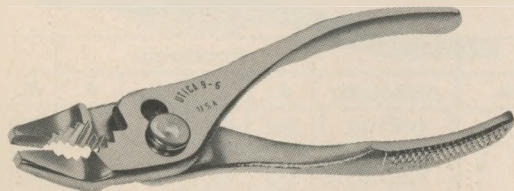
A slip joint plier with wire cutter made from special steel, drop forged, machined and hardened by special methods to meet the needs of the most particular. Knurled handles. Polished Nickel Chromium.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
8-6	11136	1 $\frac{3}{32}$	1 $\frac{1}{16}$	1 $\frac{1}{32}$	.417 lb.
8-8	11138	1 $\frac{5}{16}$	1 $\frac{1}{4}$	7 $\frac{1}{16}$	.646 lb.
8-10	11130	1 $\frac{33}{64}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	1.063 lb.

## No. 9 BENT THIN NOSE COMBINATION SLIP JOINT PLIER—POLISHED—PLATED

Nose is bent at 30-degree angle for special work. Teeth exceptionally sharp and strong. Slip joint style with wire cutter. Knurled handles. Polished Nickel Chromium.



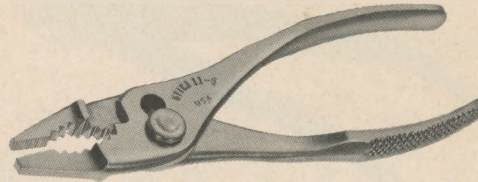
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
9-6	11176	1 $\frac{1}{16}$	1 $\frac{1}{16}$	7 $\frac{1}{32}$	.417 lb.

## No. 11 THIN NOSE COMBINATION SLIP-JOINT PLIER—POLISHED—PLATED

Fed. Spec. GGG-P-00471

Type II, Class 2, Style B

Forged steel, chromium plated, knurled handles. Case hardened bolt and nut. Thin nose and sharp teeth make it especially useful in tight places. Jaws have wire cutter.



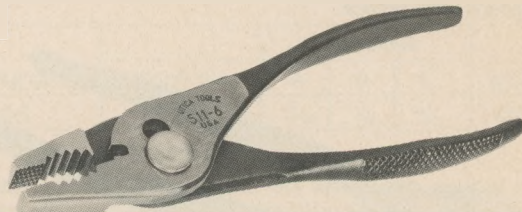
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
11-6	11146	1 $\frac{1}{16}$	1 $\frac{1}{16}$	7 $\frac{1}{32}$	.313 lb.

## No. 511 HEAVY DUTY SLIP JOINT PLIER

Fed. Spec. GGG-P-00471

Type II, Class 2, Style A

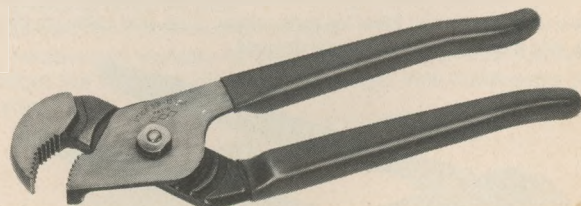
Pointed nose. Milled teeth. Buttons cutter. Through hardened bolt and nut. Polished head, black knurled handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
511-6	12156	1	1 $\frac{1}{4}$	1 $\frac{3}{32}$	.479 lb.
511-6 C	12156-10	1	1 $\frac{1}{4}$	1 $\frac{3}{32}$	.479 lb.
511-8	12158	1 $\frac{3}{32}$	1 $\frac{1}{32}$	7 $\frac{1}{16}$	.708 lb.
511-8 C	12158-10	1 $\frac{3}{32}$	1 $\frac{1}{32}$	7 $\frac{1}{16}$	.708 lb.

## No. 506 "RIB-JOINT"® HEAVY DUTY PLIER

Has double locking action for heavy duty applications, contoured jaw for firm grip on round objects.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
506-10	12240	59 $\frac{5}{64}$	2 $\frac{3}{32}$	1 $\frac{15}{32}$	1 lb.
506-10 C	12240-10	59 $\frac{5}{64}$	2 $\frac{3}{32}$	1 $\frac{15}{32}$	1 lb.

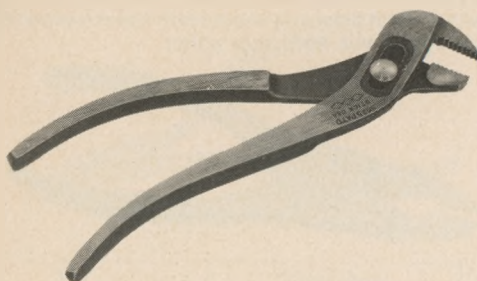


# PLIERS

## No. 507 "RIB-JOINT"® IGNITION PLIER

Fed. Spec. GGG-P-00471  
Type II, Class 1, Style A.

Drop forged from alloy steel. Smooth working multiple rib joint. Clean, sharp teeth give firm grip.

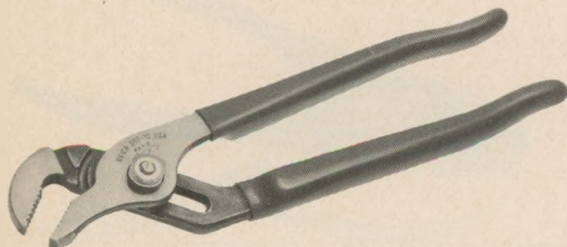


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
507-5	12235-00	2 <sup>3</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub>	.125 lb.
507-5 C	12235-10	2 <sup>3</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub>	.125 lb.

## No. 507 "RIB-JOINT"® UTILITY PLIER

Fed. Spec. GGG-P-00471  
Type II, Class 1, Style A (10" size).

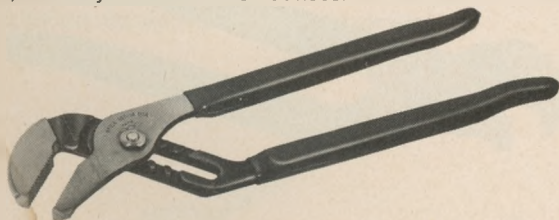
Teeth designed to give a maximum grip on any object. The jaws are positively locked in position by the rib and groove-joint design, and cannot slip under any pressure. This plier is ideal for automotive work and general utility service.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
507-6 <sup>1</sup> / <sub>2</sub>	12236	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>9</sup> / <sub>16</sub>	.292 lb.
507-6 <sup>1</sup> / <sub>2</sub> C	12236-10	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>9</sup> / <sub>16</sub>	.292 lb.
507-10	12230	1 <sup>5</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>32</sub>	.750 lb.
507-10 C	12230-10	1 <sup>5</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>32</sub>	.750 lb.

## No. 507 "RIB-JOINT"® UTILITY PLIER

Cushion handles are standard. Maximum jaw opening 2<sup>1</sup>/<sub>16</sub>". Multiple slip joint plier with self-locking jaw opening adjustment that will not slip. Long, durable handles give powerful leverage to grip round, flat, square or hex objects. Ideal for rods, pipes, hose and cable connections, and many other mechanical devices.

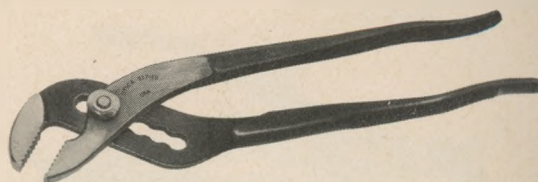


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
507-14 C	12234	2	3 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	2 lb.

## No. 517 WATER PUMP AND ELECTRICIAN'S LOCK NUT PLIER

Fed. Spec. GGG-P-00471  
Type II, Class 1, Style B.

Made from our own special alloy steel, carefully heat treated. It has opening from 0" to 1<sup>3</sup>/<sub>4</sub>". Has six slip-joint adjustments, heavy teeth. Can be used for all plier purposes and light pipe wrench work.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
517-10	12380	1 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	.688 lb.

## No. 529 A-N CONNECTOR PLIER

With nylon inserts for protection of connectors. Chrome Plated. Nylon inserts are replaceable. Designed to fit A-N electrical connectors. Has three adjustment positions.



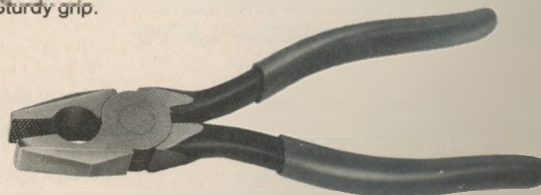
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
529-10	12830	1 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub>	.656 lb.
529-10 C	12830-10	1 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub>	.658 lb.
12830-05	12830-05	Replacement Inserts			
12830-06	12830-06	Replacement Screws			

## No. 50 ELECTRICIAN'S STANDARD SIDE CUTTING PLIER

Fed. Spec. GGG-P-00471  
Type IX, Class 1, Style A (6" and 8" sizes).

With cushion handles — Type IX, Class 1, Style B (6" and 8" sizes).

Especially designed for linemen and others whose requirements are unusually hard and exacting. Electronically hardened cutting edges. Handles and jaws extremely increased in strength and toughness. Sturdy grip.



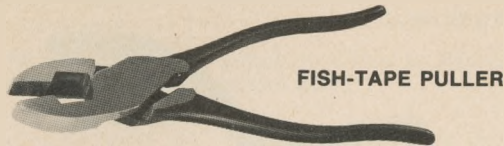
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
50-6	14616	1 <sup>3</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	.500 lb.
50-6 A	14616-75	1 <sup>3</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	.500 lb.
50-6 C	14616-10	1 <sup>3</sup> / <sub>32</sub>	5 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	.500 lb.
50-7	14617	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	.645 lb.
50-7 A	14617-75	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	.645 lb.
50-7 C	14617-10	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	.645 lb.
50-8	14618	1 <sup>1</sup> / <sub>16</sub>	1	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	.813 lb.
50-8 A	14618-75	1 <sup>1</sup> / <sub>16</sub>	1	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	.813 lb.
50-8 C	14618-10	1 <sup>1</sup> / <sub>16</sub>	1	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	.813 lb.



# PLIERS

## No. 159 NEW ENGLAND HEAD HIGH LEVERAGE LINEMAN'S SIDE CUTTING PLIER

Special offset rivet and longer handles give much greater leverage. Streamlined head—slides easily in and out of tool belt. Cutters are hand honed so that they cut cleanly and stay sharp.

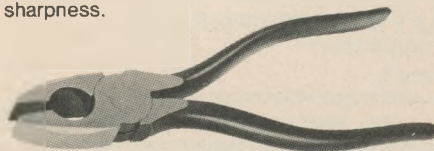


FISH-TAPE PULLER

Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
159-9	14439	1 <sup>19</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>32</sub>	1.042 lb.
159-9 A	14439-75	1 <sup>19</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>32</sub>	1.042 lb.
159-9 C	14439-10	1 <sup>19</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>32</sub>	1.042 lb.

## No. 259 NEW ENGLAND HEAD LINEMAN'S SIDE CUTTING PLIER

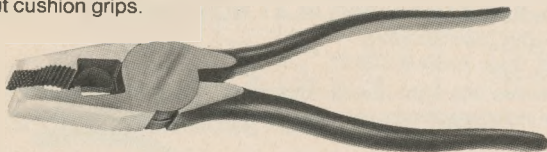
Streamlined design. Slides freely in and out of belt loops; light in weight without sacrificing strength. Hand-honed edges cut cleanly and retain sharpness.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
259-6	14416	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
259-6 A	14416-75	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
259-6 C	14416-10	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
259-8	14418	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.938 lb.
259-8 A	14418-75	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.938 lb.
259-8 C	14418-10	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.938 lb.

## No. 3800 UNIVERSAL CUTTING PLIER

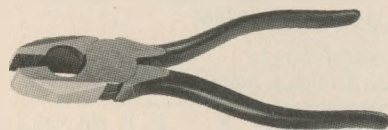
Designed for every lineman's tool pouch. Used for all types of wire cutting, gripping of conduit pipe and wire snaking. Available with or without cushion grips.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
3800-8	14478-00	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	.875 lb.
3800-8 C	14478-10	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	.875 lb.

## No. 1950 LINEMAN'S HEAVY DUTY SIDE CUTTING PLIER

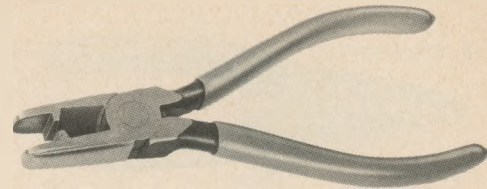
Designed especially to meet the requirements of linemen. Cuts many gauges of wire.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
1950-6	14456	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
1950-6 A	14456-75	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
1950-6 C	14456-10	1 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7/ <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	.458 lb.
1950-7	14457	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	<sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	.645 lb.
1950-7 A	14457-75	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	<sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	.645 lb.
1950-7 C	14457-10	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	<sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	.645 lb.
1950-8	14458	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.979 lb.
1950-8 A	14458-75	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.979 lb.
1950-8 C	14458-10	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	.979 lb.

## No. 75492 CONNECTOR CRIMPING PLIER

Connector crimping plier designed to seat UG, UR and UY connectors. Stop behind crimp area to prevent damage to connectors. Has cutting edges for cutting telephone wires. Cushion handles and spring standard.

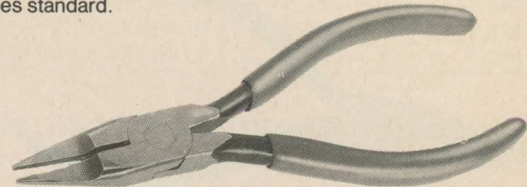


Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
75492	75492	1	1 <sup>1</sup> / <sub>16</sub>	<sup>3</sup> / <sub>8</sub>	<sup>1</sup> / <sub>2</sub>	.290 lb.

## No. 2291 INSULATION SKINNING PLIER

Extensively used in telephone work.

A special plier for telephone work designed to skin 22- or 24-gauge wire. Will crack insulation in slot provided in nose. Red cushion handles standard.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
2291-6 C	16186-10	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>32</sub>	.333 lb.

## No. 15390 MINI-SHEAR

Because of its shearing action the Mini-Shear requires minimal operator effort. Lightweight in construction the Mini-Shear offers thick foam covered handles, double recoil spring permanently affixed. Shear cuts nickel, copper, and dumet lead.



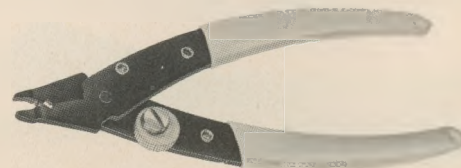
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
15390	15390-00	1 <sup>1</sup> / <sub>32</sub>	<sup>9</sup> / <sub>16</sub>	<sup>9</sup> / <sub>32</sub>	.113 lb.

## No. 110 WIRE STRIPPING PLIER

Handles up to No. 10 wire.

Standard with yellow cushion handles.

V notches nick insulation for clean, fast stripping of wire. Face ground edges cut soft wire up to No. 10 gauge. With comfortable plastic grips.



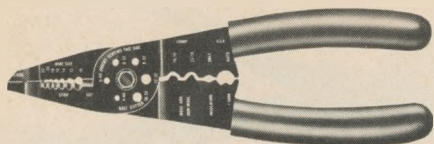
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
110-5 C	15515-00	<sup>5</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>64</sub>	.164 lb.



# PLIERS

## No. 79201 CRIMPING TOOL

Cuts and strips wire 22-10 gauge and crimps both insulated and non-insulated terminals. Cutters at tip of tool facilitates cutting in cramped quarters. Bolt slicer accommodates 6 sizes of bolts. Cushion grips. Weight: 1 lb. each.

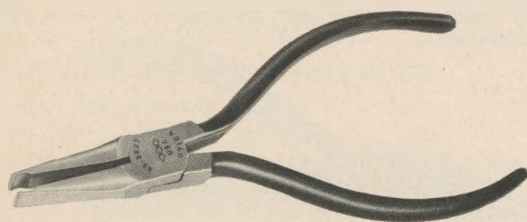


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
79201	18860-00	1 $\frac{3}{32}$	1 $\frac{1}{2}$	$\frac{9}{16}$	1.000 lb.

## No. KS2827 HEAT COIL EXTRACTING PLIER

Extensively used in telephone work.

Nose is shaped to fit heat coils. Also, helpful in holding cylindrical objects.

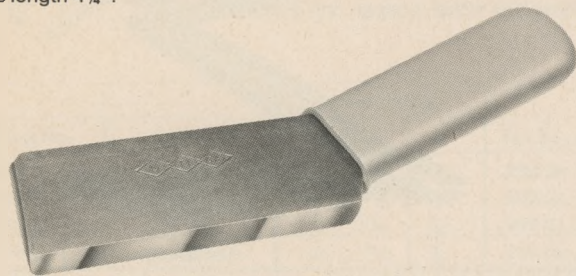


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
KS2827	79813-00	1 $\frac{1}{8}$	1 $\frac{1}{2}$	$\frac{1}{4}$	.113 lb.

## No. 20820 CHIPPING KNIFE

Fed. Spec. GGG-K-481 Type III.

For splitting lead cable. Used in telephone work. Overall length 9", blade length 4 $\frac{3}{4}$ ".

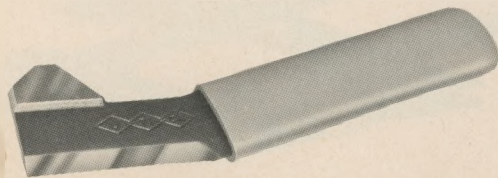


Catalog No.	E. D. P. No.	Wt. Ea.
20820	20820	1.080 lb.

## No. 20821 CHIPPING KNIFE

Fed. Spec. GGG-K-481 Type VI.

For splitting lead cable. Used in telephone work. Has hammer head on back of blade. Overall length 7 $\frac{1}{4}$ ", blade length 2 $\frac{1}{32}$ ".



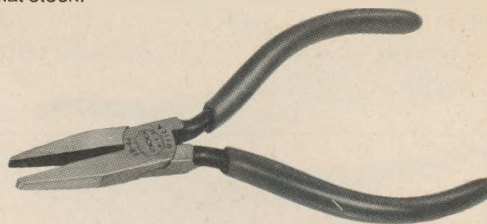
Catalog No.	E. D. P. No.	Wt. Ea.
20821	20821	.417 lb

## No. 20 FLAT NOSE PLIER

Fed. Spec. GGG-P-00471

Plain jaws standard.

Flat jaws get into restricted areas, provide good grip for holding and bending flat stock.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
20-4 $\frac{1}{2}$ G	16321-00	1 $\frac{1}{16}$	$\frac{7}{16}$	$\frac{9}{32}$	.146 lb.
20-4 $\frac{1}{2}$ GC	16321-10	1 $\frac{1}{16}$	$\frac{7}{16}$	$\frac{9}{32}$	.146 lb.
20-4 $\frac{1}{2}$ GCS	16321-11	1 $\frac{1}{16}$	$\frac{7}{16}$	$\frac{9}{32}$	.146 lb.

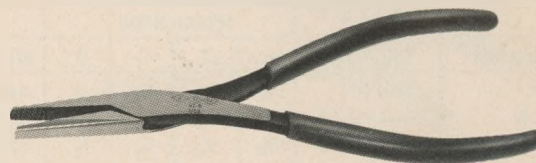
## No. 31 FLAT NOSE WIRING PLIER

Fed. Spec. GGG-P-00471

Type XV, Class 2.

Extensively used in typewriter repair and assembly work.

Long reach handles, short nose will fit into hard-to-get-at places in all types of electrical assembly and maintenance work.



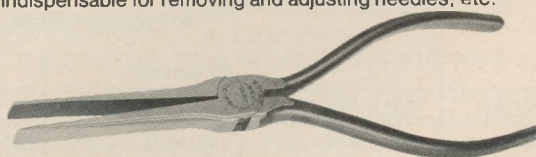
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
31-8 H	16388-00	1 $\frac{3}{8}$	$\frac{9}{16}$	$\frac{7}{16}$	.417 lb.
31-8 HC	16388-10	1 $\frac{3}{8}$	$\frac{9}{16}$	$\frac{7}{16}$	.417 lb.

## No. 87 EXTRA LONG FLAT NOSE PICK UP PLIER

Smooth Jaws Standard

Fed. Spec. GGG-P-00471

Reaches into tight places. Operators of knitting machines find this tool indispensable for removing and adjusting needles, etc.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
87-7 G	16337	2 $\frac{7}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{3}{16}$	.333 lb.

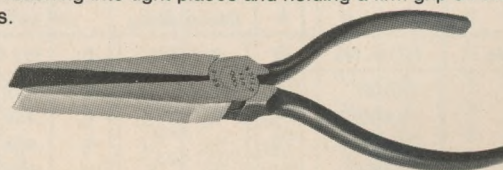
## No. 86 FLAT NOSE PLIER

Fed. Spec. GGG-P-00471

Type V, Class 3; Style A. (With scored jaws).

Serrated Jaws Standard.

For reaching into tight places and holding a firm grip on the tip of the jaws.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
86-6 H	16316	2 $\frac{1}{4}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{8}$	.292 lb.
86-6 HC	16316-10	2 $\frac{1}{4}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{8}$	.292 lb.

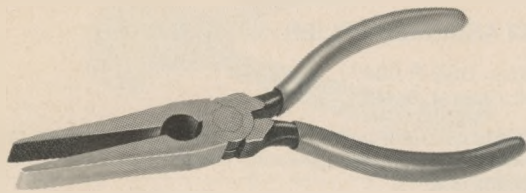


# PLIERS

## No. 650 LONG REACH FLAT NOSE SIDE CUTTING PLIER

Serrated jaws standard.  
Fed. Spec. GGG-P-00471  
Type V, Class 3, Style B.

Long and thin; flat nose and keen cutting edge. Ideal for automobile radiator repair and textile knitting machines work.



Catalog No.	E.D.P. No.	Dimensions					Wt. Ea.
		A	B	C	D	E	
650-6	14316-00	2 1/4	2 1/32	3/8	7/16	1/8	.292 lb.
650-6 C	14316-10	2 1/4	2 1/32	3/8	7/16	1/8	.292 lb.

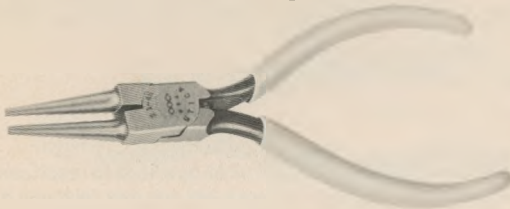
## No. 21 ROUND NOSE PLIER

Fed. Spec. GGG-P-00471

Plain jaws standard.

Used by radio repairmen, jewelers and opticians.

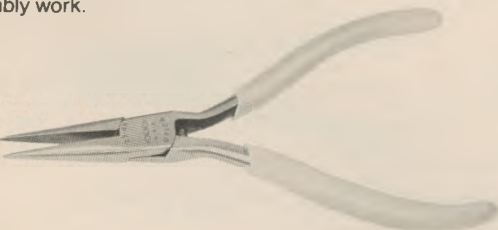
Both sides of nose are carefully rounded, precision ground to small point. Excellent for looping and forming fine wire.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
21-4 1/2 G	16611-00	1 5/32	7/16	9/32	1/8	.146 lb.
21-4 1/2 GC	16611-10	1 5/32	7/16	9/32	1/8	.146 lb.

## No. 23 SHORT CHAIN NOSE PLIER, VERY THIN NOSE

Slim streamlined plier. Excellent for subminiature electronic assembly work.

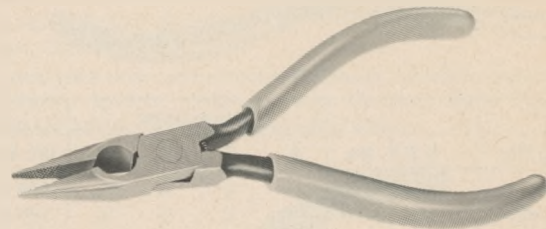


Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
23-4 GCSR	16124-49	2 5/32	2 3/64	1 5/64	1/32	.087 lb.
23-4 H	16124-00	2 9/32	2 3/64	1 5/64	1/32	.087 lb.
23-4 HC	16124-10	2 9/32	2 3/64	1 5/64	1/32	.087 lb.
23-4 HCS	16124-11	2 9/32	2 3/64	1 5/64	1/32	.087 lb.
23-4 1/2 H	16121-00	1 1/32	1 3/32	1/4	3/64	.103 lb.
23-4 1/2 HC	16121-10	1 1/32	1 3/32	1/4	3/64	.103 lb.
23-4 1/2 HCS	16121-11	1 1/32	1 3/32	1/4	3/64	.103 lb.
23-4 1/2 GCS	16121-23	1 1/32	1 3/32	1/4	3/64	.103 lb.
23-5 H	16125-00	1 1/8	1 3/32	1/4	1/16	.146 lb.
23-5 HC	16125-10	1 1/8	1 3/32	1/4	1/16	.146 lb.
23-5 HCS	16125-11	1 1/8	1 3/32	1/4	1/16	.146 lb.

## No. 622 MECHANIC'S SHORT CHAIN NOSE SIDE CUTTING PLIER

Fed. Spec. GGG-P-00471  
Type XI, Class 2, Style A.  
(Milliner's)

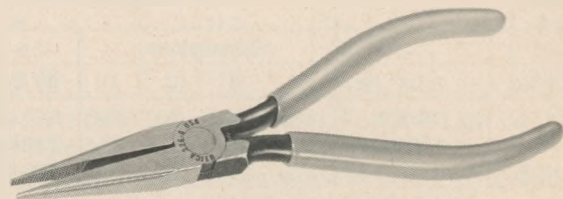
Light in weight, perfectly balanced. Short nose ground to fine point. Side cutter.



Catalog No.	E.D.P. No.	Dimensions					Wt. Ea.
		A	B	C	D	E	
622-5	14115-00	1 1/8	1/2	5/16	3/8	1/8	.230 lb.
622-5 C	14115-10	1 1/8	1/2	5/16	3/8	1/8	.230 lb.
622-5 CS	14115-11	1 3/16	1/2	5/16	3/8	1/8	.230 lb.

## No. 226 LONG CHAIN NOSE PLIER

For radio, telephone and other electronic work. Makes all sizes of loops and bends of various sizes and reaches into tight places.

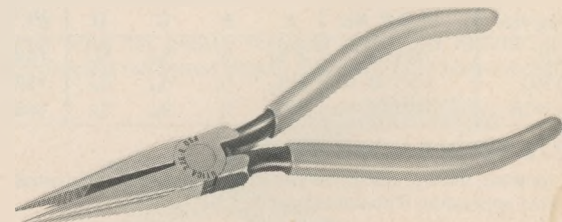


Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
226-6 1/2 H	16226-00	1 7/8	5/8	2 3/64	3/32	.313 lb.
226-6 1/2 HC	16226-10	1 7/8	5/8	2 3/64	3/32	.313 lb.
226-6 1/2 HCS	16226-11	1 7/8	5/8	2 3/64	3/32	.313 lb.

## No. 227 LONG CHAIN NOSE PLIER

Size of Extreme Point 1/16".

Tip of this plier is precision machined to 1/16" diameter. Excellent for radio or telephone switchboards.



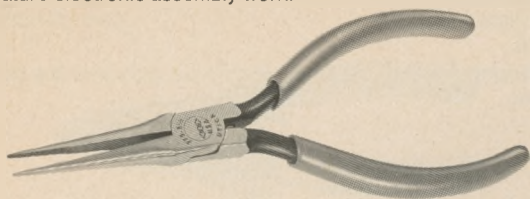
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
227-6 1/2 H	16227-00	1 7/8	5/8	3/8	1/8	.313 lb.
227-6 1/2 HC	16227-10	1 7/8	5/8	3/8	1/8	.313 lb.
227-6 1/2 HCS	16227-11	1 7/8	5/8	3/8	1/8	.313 lb.



# PLIERS

## No. 775 NEEDLE NOSE PLIER

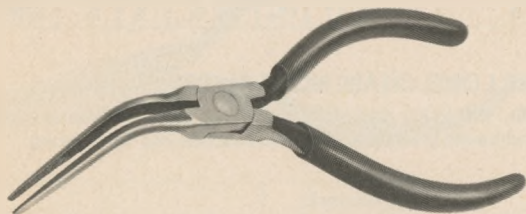
Slim streamlined plier with fine serrations. Excellent for sub-miniature electronic assembly work.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
775-5½H	16415	1¾	½	¼	¾	.144 lb.
775-5½ HC	16415-10	1¾	½	¼	¾	.144 lb.
775-5½ HCS	16415-11	1¾	½	¼	¾	.144 lb.

## No. 776 CURVED LONG NEEDLE NOSE PLIER SERRATED JAWS

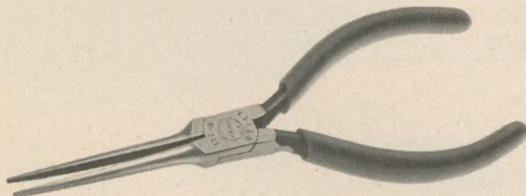
Especially handy for hard to get at places. Takes the place of a variety of special tools for different jobs. Special analysis alloy steel. Heat treated by latest modern methods to give great strength and durability.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
776-6 H	16526	1 11/32	½	1 9/64	¾	.200 lb.
776-6 HC	16526-10	1 11/32	½	1 9/64	¾	.200 lb.
776-6 HCS	16526-11	1 11/32	½	1 9/64	¾	.200 lb.

## No. 777 LONG NEEDLE NOSE PLIER SERRATED JAWS

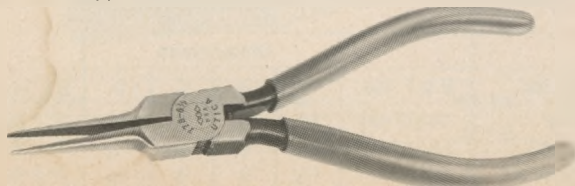
Extra slim-nosed electronic plier for gripping, looping and twisting wire and for light, confined, precision work. High quality steel.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
777-6 H	16516	2 19/64	½	1 9/64	¾	.168 lb.
777-6 HC	16516-10	2 19/64	½	1 9/64	¾	.168 lb.
777-6 HCS	16516-11	2 19/64	½	1 9/64	¾	.168 lb.

## No. 778 NEEDLE NOSE PLIER

Long, tapered, sturdy, spring tempered jaws for assembling small electronic apparatus. Fine serration.



## NO 778 PLIER (Cont.)

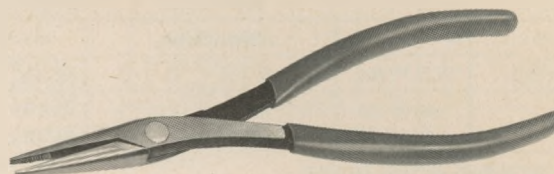
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
778-6½H	16416	1 7/8	5/8	3/8	3/32	.294 lb.
778-6½ HC	16416-10	1 7/8	5/8	3/8	3/32	.294 lb.
778-6½ HCS	16416-11	1 7/8	5/8	3/8	3/32	.294 lb.

## No. 82 ASSEMBLY PLIER, NEEDLE NOSE

Fed. Spec. GGG-P-00471

Type XI, Class 2, Style B.

For drawing and looping wire, working in close quarters, and reaching way back into assemblies. Diamond knurled teeth permit pulling or side holding grip. 1¾".



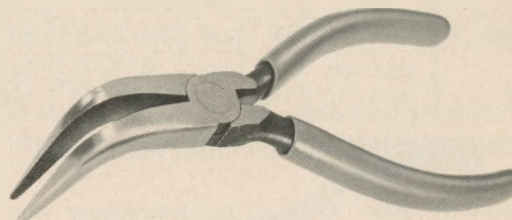
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
82-8	16438	1 3/8	9/16	5/16	.396 lb.
82-8 C	16438-10	1 3/8	9/16	7/16	.396 lb.

## No. 888 CURVED CHAIN NOSE PLIER

Fed. Spec. GGG-P-00471

Type XII, Class 1.

The long tapered nose slips through small openings to reach awkward jobs or around obstructions. Bent nose lets you see what you are doing.



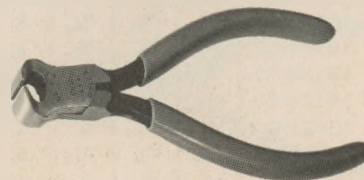
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
888-6	16536	1 ¼	2 1/32	¾	.292 lb.
888-6 C	16536-10	1 ¼	2 1/32	¾	.292 lb.

## No. 65 JEWELERS' END CUTTING NIPPERS

Fed. Spec. GGG-N-350

Type I, Class 2, Style A (4½" size).

Sharp, clean edges ground to allow cutting close to flat surfaces.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
65-4½	15144	9/16	¾	1 1/32	½	.166 lb.
65-4½C	15144-10	9/16	¾	1 1/32	½	.166 lb.



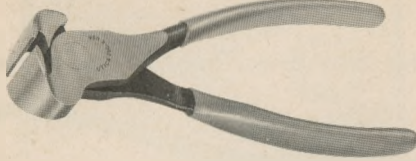
# PLIERS

## No. 260 END CUTTING NIPPERS

Fed. Spec. GGG-N-350

Type I, Class 2, Style A (6" and 7").

Designed with wide throat clearance and ample handle leverage with jaws at just the right angle for easiest cutting. Electronically hardened cutting edges. Handles and jaws have high strength and toughness. Drop forged from tough alloy steel.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
260-6	15116	$\frac{3}{8}$	$1\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{16}$	.520 lb.
260-6 C	15116-10	$\frac{3}{8}$	$1\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{16}$	.520 lb.
260-7	15117	$\frac{11}{32}$	$1\frac{5}{8}$	$\frac{17}{32}$	$1\frac{3}{16}$	.708 lb.
260-7 A	15117-75	$\frac{11}{32}$	$1\frac{5}{8}$	$\frac{17}{32}$	$1\frac{3}{16}$	.708 lb.
260-7 C	15117-10	$\frac{11}{32}$	$1\frac{5}{8}$	$\frac{17}{32}$	$1\frac{3}{16}$	.708 lb.
260-8	15118	$\frac{11}{32}$	$1\frac{3}{4}$	$\frac{9}{16}$	$1\frac{3}{16}$	.813 lb.
260-8 A	15118-75	$\frac{11}{32}$	$1\frac{3}{4}$	$\frac{9}{16}$	$1\frac{3}{16}$	.813 lb.
260-8 C	15118-10	$\frac{11}{32}$	$1\frac{3}{4}$	$\frac{9}{16}$	$1\frac{3}{16}$	.813 lb.

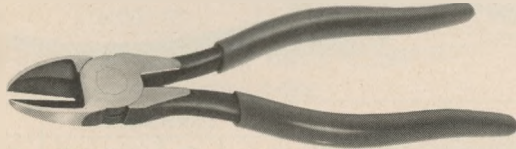
## No. 39 HEAVY DUTY DIAGONAL CUTTING PLIER

Fed. Spec. GGG-P-00468

Type I, Class 1

Designed for cutting heavy wire with ease.

Keen, long lasting cutting edges. Handle design affords comfortable grip.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
39-7	13137	1.00	$2\frac{9}{32}$	$1\frac{5}{32}$	.520 lb.
39-7 C	13137-10	1.00	$2\frac{9}{32}$	$1\frac{5}{32}$	.520 lb.

## No. 13467 HIGH LEVERAGE DIAGONAL CUTTING PLIER FOR HARD WIRE

Special heat-treat, short nose, high leverage and deep beveled edges insure long life when cutting hard drawn wires up to .080" dia. with a tensile strength of 300,000 psi. Red cushion handles standard.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
13467	13467-10	$\frac{3}{8}$	$1\frac{1}{32}$	$\frac{1}{2}$	.500 lb.
13467 A	13467-75	$\frac{3}{8}$	$1\frac{1}{32}$	$\frac{1}{2}$	.500 lb.

## No. 40 HIGH LEVERAGE DIAGONAL CUTTING PLIER

Fed. Spec. GGG-P-00468

Type III

An extra sturdy cutting tool of unusual strength. Electronically hardened cutting edges, strong and sharp. Forged from tough alloy steel. Handles and jaws have high strength and toughness. Will give long service on heavy duty jobs.



## NO. 40 PLIER (Cont.)

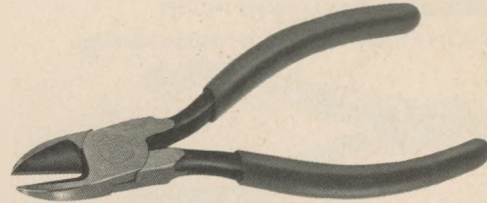
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
40-7	13447	$\frac{51}{64}$	$1\frac{1}{16}$	$\frac{1}{2}$	.500 lb.
40-7 A	13447-75	$\frac{51}{64}$	$1\frac{1}{16}$	$\frac{1}{2}$	.500 lb.
40-7 C	13447-10	$\frac{51}{64}$	$1\frac{1}{16}$	$\frac{1}{2}$	.500 lb.

## No. 41 ELECTRICIAN'S DIAGONAL PLIER

Fed. Spec. GGG-P-00468

Type I, Class 1

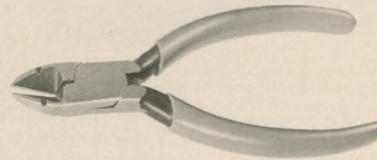
Tapered jaws work easily in confined places. Useful for switchboard, telephone, ignition, electronic and electrical work. Induction-hardened cutting edge. High quality alloy steel.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
41-4	13114	$2\frac{1}{32}$	$\frac{9}{16}$	$1\frac{1}{32}$	.187 lb.
41-4 C	13114-10	$2\frac{1}{32}$	$\frac{9}{16}$	$1\frac{1}{32}$	.187 lb.
41-4 CS	13114-11	$2\frac{1}{32}$	$\frac{9}{16}$	$1\frac{1}{32}$	.187 lb.
41-5	13115	$2\frac{5}{32}$	$\frac{5}{8}$	$\frac{3}{8}$	.250 lb.
41-5 C	13115-10	$2\frac{5}{32}$	$\frac{5}{8}$	$\frac{3}{8}$	.250 lb.
41-5 CS	13115-11	$2\frac{5}{32}$	$\frac{5}{8}$	$\frac{3}{8}$	.250 lb.
41-6	13116	$\frac{13}{16}$	$1\frac{1}{16}$	$\frac{7}{16}$	.396 lb.
41-6 C	13116-10	$\frac{13}{16}$	$1\frac{1}{16}$	$\frac{7}{16}$	.396 lb.
41-6 CS	13116-11	$\frac{13}{16}$	$1\frac{1}{16}$	$\frac{7}{16}$	.396 lb.

## No. V41 SPECIAL DIAGONAL PLIER WITH "W" NOTCH AND INSULATION CRUSHER

For telephone and switchboard wire work. Has 2 "W" shaped stripping notches on head. Red cushion handles standard.



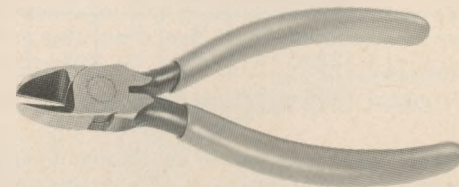
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
V41-5 C	13835-10	$2\frac{5}{32}$	$\frac{9}{16}$	$\frac{3}{8}$	.250 lb.

## No. 45 AVIATION SHORT NOSE DIAGONAL CUTTING PLIER

Fed. Spec. GGG-P-00468

Type III

Shorter nose for greater leverage and close quarter cutting. Electronically hardened edges. Standard blue cushion handles.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
45-6	13156	$\frac{9}{16}$	$2\frac{3}{32}$	$\frac{7}{16}$	.354 lb.
45-6 C	13156-10	$\frac{9}{16}$	$2\frac{3}{32}$	$\frac{7}{16}$	.354 lb.



# PLIERS

## No. 48 PLASTIC CUTTING DIAGONAL PLIER

Spring Standard  
flush jaws for clean cutting—

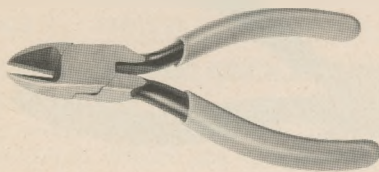
Perfect for cutting plastic parts from injection moulded spruces and other uses. Not to be used for metal. Red cushion handles standard.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
48-7 CS	13187-10	1	$2\frac{9}{32}$	$1\frac{5}{32}$	.520 lb.

## No. 241 DIAGONAL CUTTING PLIER

Hardened cutting edges. Red cushion handles standard.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
241-5 C	13415-10	$2\frac{5}{32}$	$\frac{5}{8}$	$\frac{3}{8}$	.250 lb.

## No. 242 DIAGONAL CUTTING WITH WIRE STRIPPING HOLE IN BLADE, AND WITH W-SHAPED STRIPPING NOTCHES ON BACK OF HEAD CUSHION HANDLES STANDARD

For telephone and switchboard wire work. Red cushion handles standard.

.052" Dia - Size of hole.

Fed. Spec. GGG-P-00468

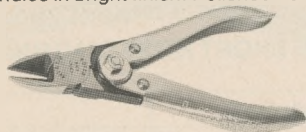
Type I, Class 2,



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
242-6 C	13426-10	$1\frac{3}{16}$	$2\frac{5}{32}$	$2\frac{7}{64}$	.350 lb.

## No. 441 COMPOUND ACTION DIAGONAL PLIER

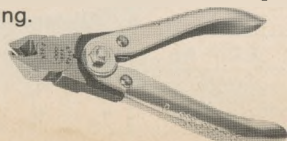
A powerful high speed cutting tool for production work. Comfortable formed steel handles in bright finish. Polished head. Built-in spring.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
441-5½	13825-00	$1\frac{3}{16}$	$2\frac{1}{32}$	$\frac{3}{8}$	.500 lb.
441-5½C	13825-10	$1\frac{3}{16}$	$2\frac{1}{32}$	$\frac{3}{8}$	.500 lb.

## No. 470 COMPOUND ACTION PRINTED CIRCUIT PLIER

Cuts transistor leads, or small wires, to uniform length, and crimps the end to prevent the lead from falling out of the circuit board. Built-in spring.



## NO. 470 PLIER (Cont.)

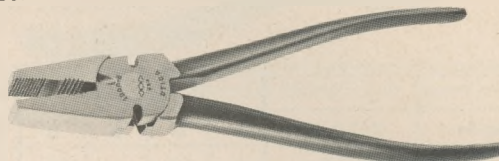
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
470-5	13845-00	$\frac{1}{2}$	$2\frac{1}{32}$	$2\frac{7}{64}$	$\frac{5}{64}$	.354 lb.
470-5 C	13845-10	$\frac{1}{2}$	$2\frac{1}{32}$	$2\frac{7}{64}$	$\frac{5}{64}$	.354 lb.

## No. 1000 GIANT BUTTON'S PLIER

Fed. Spec. GGG-P-00471

Type III.

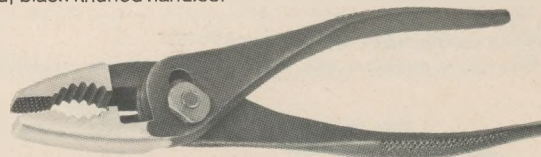
Flat nose style, with three wire cutters, pipe grip and teeth in extreme tip of nose.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
1000-8	18428	$1\frac{1}{4}$	$1\frac{1}{16}$	$\frac{9}{16}$	.792 lb.
1000-10	18420	$1\frac{1}{2}$	$1\frac{1}{16}$	$1\frac{9}{32}$	1.313 lb.

## No. 513 MECHANIC'S SLIP-JOINT SIDE CUTTING PLIER

Designed for hard, heavy duty use under any conditions. Polished head, black knurled handles.



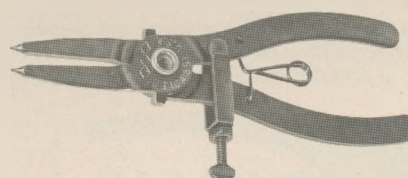
Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
513-7	12487	$1\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{3}{32}$	$\frac{3}{8}$	.583 lb.

## No. 561-6 RETAINING RING PLIER INTERNAL

Fed. Spec. GGG-P-00480

Type 1, Class 1, Style A.

Prevent ring damage, reduce danger from flying rings.



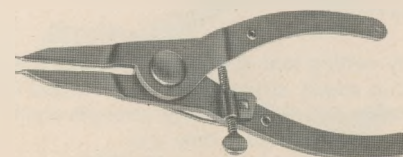
		Dimensions						
Catalog No.	E.D.P. No.	A	B	D	E	F	H	Wt. Ea.
561-6	18131	5 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	¾	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	.190 lb.

## No. 562-6 RETAINING RING PLIER EXTERNAL

Fed. Spec. GGG-P-00480

Type II, Class 2, Style A.

Prevent ring damage, reduce danger from flying rings.



		Dimensions						
Catalog No.	E.D.P. No.	A	B	D	E	F	H	Wt. Ea.
562-6	18132	5 <sup>11</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1	1 <sup>9</sup> / <sub>64</sub>	1/32	2 <sup>1</sup> / <sub>4</sub>	.190 lb.



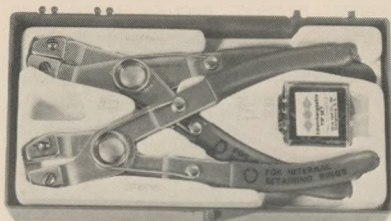
# PLIERS

## No. B-65 SNAP RING PLIER SET

Consists of an external and internal plier and an interchangeable tip set.

### RETAINING RING PLIERS SET

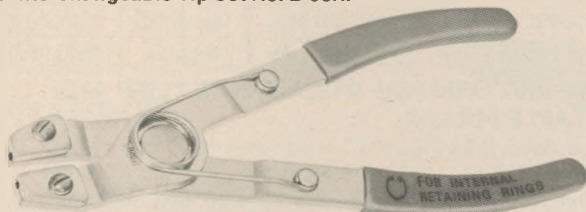
In clear plastic box. Consists of one each B-63 Internal Plier and B-64 External Plier and Interchangeable Tip Set No. B-65R.



Catalog No.	E.D.P. No.	Wt. Ea.
B-65	84001	.875 lb.

## No. B-63 INTERNAL SNAP RING PLIER

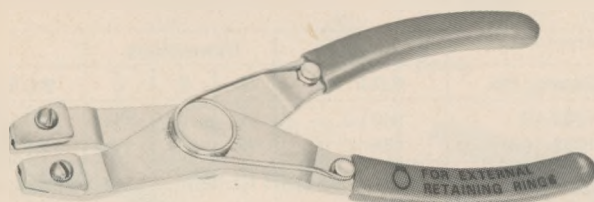
See Interchangeable Tip Set No. B-65R.



Catalog No.	E.D.P. No.	Description	Wt. Ea.
B-63	84001-01	Tips not included	.250 lb.

## No. B-64 EXTERNAL SNAP RING PLIER

See Interchangeable Tip Set No. B-65R.



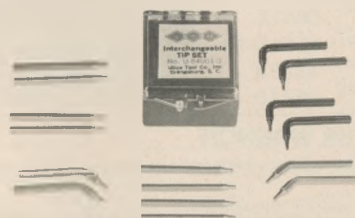
Catalog No.	E.D.P. No.	Description	Wt. Ea.
B-64	84001-02	Tips not included	.250 lb.

## B-65R SNAP RING PLIER INTERCHANGEABLE TIP SET

### SNAP RING PLIER INTERCHANGEABLE TIP SET

Tip Set contains the following in a plastic Box;

- 2 Prs. of 90° .035 Dia. Tips
- 2 Prs. of 45° .045 Dia. Tips
- 2 Prs. of Straight .045 Dia. Tips
- 2 Prs. of Straight .060 Dia. Tips

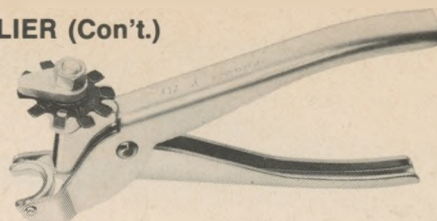


Catalog No.	E.D.P. No.	Wt. Ea.
B-65 R	84001-03	.125 lb.

## K-70 SPARK PLUG GAPPING TOOL

Improved design for gapping 10mm and 14mm spark plugs. Every gap sets the same. Revolving gauge gaps to sizes, .022, .025, .026, .028, .030, .032, .035, .036, .038 and .040. Handle end is tapered electrode spreader.

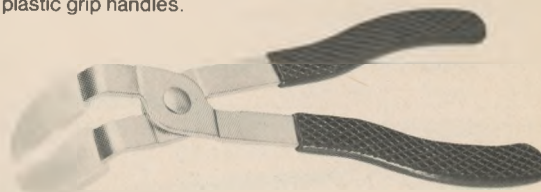
## K-70 PLIER (Con't.)



Catalog No.	E.D.P. No.	Wt. Ea.
K-70	91266	.83 lb.

## B-74 SPARK PLUG TERMINAL PLIERS

For removing plug wires with engine running. Nylon insulated jaws and plastic grip handles.



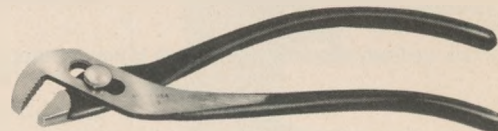
Catalog No.	E.D.P. No.	Wt. Ea.
B-74	18256	.311 lb.

## No. 517 IGNITION PLIER

Fed. Spec. GGG-P-00471

Type II, Class 1, Style B.

The 517 is a small 5 inch general purpose plier, has three adjustment positions. Ideal for automotive and household work.



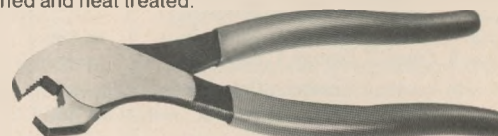
Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
517-5	12385	23/64	29/32	3/16	.104 lb.

## No. 524 ANGLE NOSE BATTERY PLIER

Fed. Spec. GGG-P-00471

Type I.

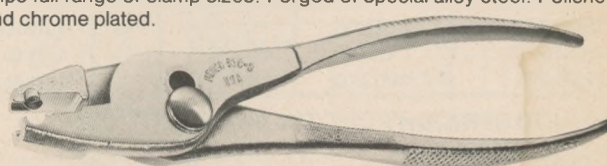
Especially designed to grip and turn terminal nuts on batteries no matter how badly corroded and mutilated. Tapered nose—curved handles to fit hand. Drop forged from special alloy steel. Carefully machined and heat treated.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
524-7	18217	19/32	1 1/4	5/16	.500 lb.

## No. 538 HOSE CLAMP PLIER CHROME PLATED

Installs and removes wire spring tension clamps. New slip joint action grips full range of clamp sizes. Forged of special alloy steel. Polished and chrome plated.

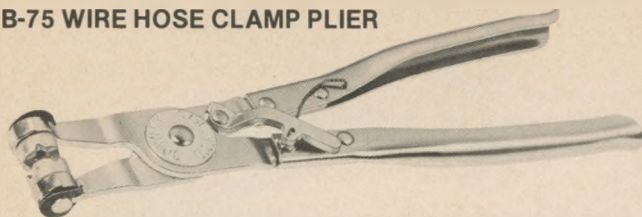


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
538-8	12818	1 1/64	1 1/32	7/16	.688



# PLIERS

## B-75 WIRE HOSE CLAMP PLIER



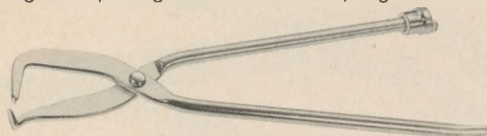
Catalog No.	E.D.P. No.	Length	Wt. Ea.
B-75	18818	7 $\frac{3}{4}$	.406 lb.

## No. 525 WS BRAKE SPRING PLIER WITH SOCKET

Fed. Spec. GGG-P-00480 (without socket)

Type V.

For removing and replacing automotive brake springs.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
525 WS	18232	2 $\frac{7}{32}$	1 $\frac{1}{2}$	$\frac{3}{8}$	.729 lb.

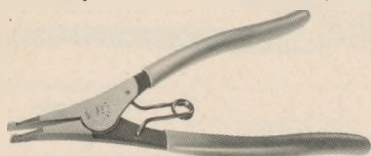
## No. 534 LOCK RING "HORSE SHOE" PLIER

Fed. Spec. GGG-P-00480

Type III, Class 2

Tips measure  $\frac{3}{32}$ " x  $\frac{1}{8}$ "

Offset jaw tips are finely scored on the outside to prevent slipping.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
534-7	18117	1 $\frac{17}{32}$	$\frac{7}{8}$	1 $\frac{1}{32}$	.375 lb.
534-7 C	18117-10	1 $\frac{17}{32}$	$\frac{7}{8}$	1 $\frac{1}{32}$	.375 lb.

## No. 280, 281, 282 AVIATION TYPE SNIPS

Fed. Spec. GGG-S-291

280 — Type II, Class D, Design 3, Grade A.

281 — Type II, Class D, Design 2, Grade A.

282 — Type II, Class D, Design 1, Grade A.

Standard with cushion handles. Color coded: yellow/cuts straight, green/cuts right, red/cuts left. Length 10", weight ea. lbs. 1.01.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
280-10"	15360	1 $\frac{7}{8}$	1	1 $\frac{1}{8}$	1.01 lb.
281-10"	15350	1 $\frac{7}{8}$	1	1 $\frac{1}{8}$	1.01 lb.
282-10"	15370	1 $\frac{7}{8}$	1	1 $\frac{1}{8}$	1.01 lb.

## No. 270 STRAIGHT CUT TIN SNIPS

Fed. Spec. GGG-S-291

7" and 12" sizes —

Type II, Class A, Grade B.



## NO. 270 SNIPS (Cont.)

Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
270-7	15317	2	1 $\frac{7}{32}$	$\frac{1}{2}$	.500 lb.
270-10	15310	2 $\frac{3}{8}$	1 $\frac{15}{32}$	1 $\frac{1}{16}$	1.000 lb.
270-12	15312	2 $\frac{3}{32}$	1 $\frac{5}{8}$	2 $\frac{3}{32}$	1.750 lb.

## No. 818 SPRING MANUFACTURERS' AND BODY TRIMMERS' HOG RING PLIER

Fed. Spec. GGG-P-00480

Type IV, Class 1.



Catalog No.	E.D.P. No.	Dimensions				Wt. Ea.
		A	B	C	D	
818-7	18527	1 $\frac{5}{32}$	1 $\frac{1}{32}$	$\frac{5}{16}$	$\frac{3}{16}$	.479 lb.
818-7 C	18527-10	1 $\frac{5}{32}$	1 $\frac{1}{32}$	$\frac{5}{16}$	$\frac{3}{16}$	.479 lb.
818-7 CS	18527-11	1 $\frac{5}{32}$	1 $\frac{1}{32}$	$\frac{5}{16}$	$\frac{3}{16}$	.479 lb.

## No. 1932 ORIGINAL UTICA FENCE PLIER AND STAPLE PULLER

Fed. Spec. GGG-P-00471

Type XVI.

Stretches wire tight before fastening. Cuts wire. Pulls out stubborn staples. Drives staples.

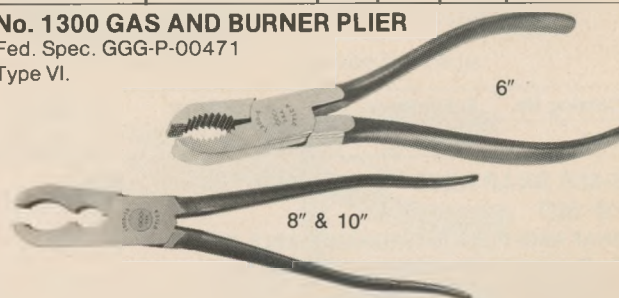


Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
1932-10	18610	$\frac{3}{4}$	3	3 $\frac{5}{8}$	1.354 lb.
1932-10 C	18610-10	$\frac{3}{4}$	3	3 $\frac{5}{8}$	1.354 lb.

## No. 1300 GAS AND BURNER PLIER

Fed. Spec. GGG-P-00471

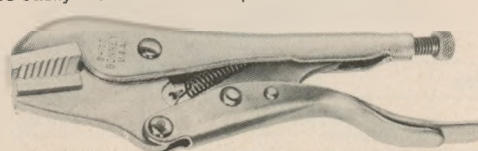
Type VI.



Catalog No.	E.D.P. No.	Dimensions			Wt. Ea.
		A	B	C	
1300-6	18516	1 $\frac{1}{8}$	$\frac{3}{4}$	$\frac{5}{16}$	.354 lb.
1300-6 C	18516-10	1 $\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{16}$	.354 lb.
1300-8	18518	2	1 $\frac{3}{16}$	1 $\frac{1}{16}$	.708 lb.
1300-10	18510	2 $\frac{1}{8}$	1 $\frac{1}{8}$	1 $\frac{9}{32}$	1.042 lb.

## No. B-100 PLIER WRENCH

Releases easily with a flick of the quick release lever.



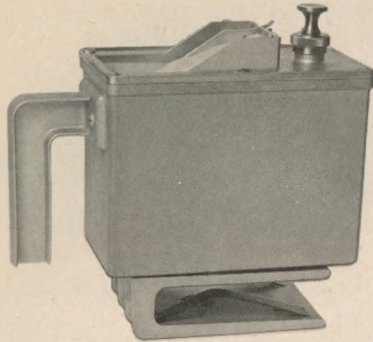
Catalog No.	E.D.P. No.	O. A. Length	Wt. Ea.
B-100	18857	7	.781 lb.
B-102	18850	10	1.164 lb.



# TELEPHONE AND ELECTRICAL TOOLS

## FLUSHING UNIT

Flushing Unit is provided to flush and apply washing fluid or petroleum spirits as needed to the discs of the CT-16062 Rotor.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-16297-L50	79996	8.189 lb.

## HANDLE ROTOR

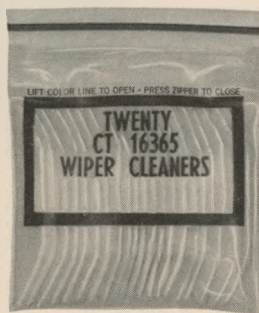
The CT-16062 Rotor when mounted in CT-16298 handle is used to non-abrasively clean and treat bank contacts and separators.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-16062	79998-10	.265 lb.
CT-16298	79997	.157 lb.

## WIPER PAD

Used for cleaning and treating bank commutator contacts and wipers.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-16365	79999-10	.032 lb.

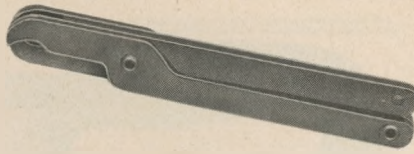
## WASHING FLUID

Washing Fluid is an oil solution for non-abrasive cleaning and treating of bank and commutator contacts and wipers. (3% oil.)  
one gallon cans (6 cans per case)

Catalog No.	E.D.P. No.	Wt. Ea.
CT-16436	79995	7.563 lb.

## PHENOLIC FUSE PULLER

For miniature fuses 3/16" to 1/2" diameter. Length 5".



Catalog No.	E.D.P. No.	Wt. Ea.
CT-3806-1	79990	.080 lb.

## PHENOLIC FUSE PULLER

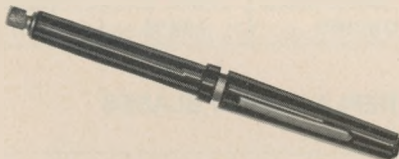
General utility use. For fuses 0 to 20 amp, 250 volt and 1 to 100 amp, 600 volt, Length 7 1/2".



Catalog No.	E.D.P. No.	Wt. Ea.
CT-3806-2	79991	.189 lb.

## POCKET TYPE BURNISHER

Use for cleaning general type relay contacts. Supplied with 6 non-residual abrasive replaceable blades and rods stored in pen barrel.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-265C	79992	.063 lb.
CT-266C-25	79992-02 Repl. Rods	.032 lb.
CT-266E-25	79992-01 Repl. Bld.	.032 lb.

## BLOCKING TOOL

The blocking tool is used for blocking for extended periods the 221, 222, 223, 224, 247, and 248 relays on step by step switches.

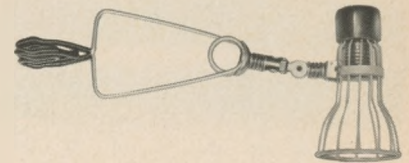


Catalog No.	E.D.P. No.	Wt. Ea.
CT-16369	79993	.032 lb.

## PORTABLE LAMP

Operates on either 24 or 48 volt central office batteries.

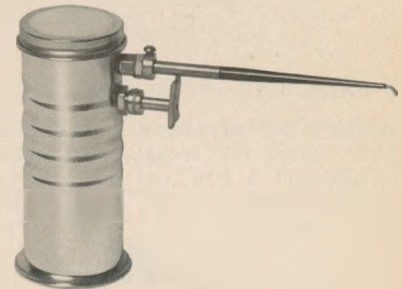
The CT-14761 lamp is supplied with a 14 ft. cord and is equipped with a (310 plug) operator type plug.



Catalog No.	E.D.P. No.	Cord Type	Wt. Lb.
CT-14761	79988-01	14'/310 Plug	1.000
CT-14762	79988-02	8'/Clips	1.000
CT-14760	79988-05	W/O Cord	.500

## OIL CAN

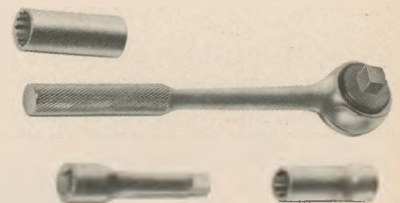
Has special non-conductive spout and controlled portion oil release.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-14796	79989 Weco	.688 lb.
CT-14700	79987 Reg.	.750 lb.

## B-WRENCH KIT—3/8" SQUARE DRIVE

Used to open and close splice cases. Consists of two deep sockets 7/16" and 9/16" respectively, with an extension to use where necessary. In metal box.



Catalog No.	E.D.P. No.	Wt. Ea.
UT-7667-B	82250	1.875 lb.

## TOOL TIP:

Do not use punches and chisels with mushroomed heads. And to prevent scraped knuckles use a punch and chisel holder.

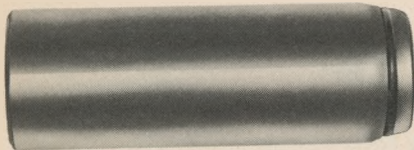
NOTE: FOR WARRANTY SEE PAGE 95.



# TELEPHONE AND ELECTRICAL TOOLS

## LINESMAN SOCKETS 1/2" Sq. Drive

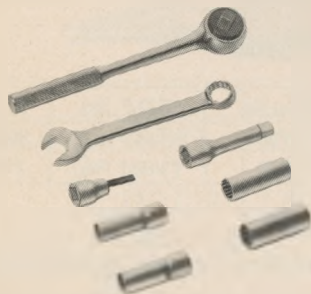
Power type sockets of high strength design with retaining ring in nut end for holding ferrous and non-ferrous fasteners.



Catalog No.	Size	E.D.P. No.	Wt. Ea.
LSP-3216L	1/2"	32416-17	.625 lb.
LSP-3218L	9/16"	32418-17	.630 lb.
LSP-3220L	5/8"	32420-17	.635 lb.
LSP-3222L	11/16"	32422-17	.650 lb.
LSP-3224-L	3/4"	32424-17	.750 lb.
LSP-3226-L	13/16"	32426-17	.800 lb.
LSP-3228-L	7/8"	32428-17	.850 lb.
LSP-3232-L	1"	32432-17	.938 lb.

## D-WRENCH KIT—3/8" Sq. Drive

Consist of reversing ratchet, a 3/8" socket, 7/16" socket, 1/2" socket, 9/16" socket, an extension, a 3/16" hex screwdriver, a 9/16" combination wrench.



Catalog No.	E.D.P. No.	Wt. Ea.
UT-8381-D	82251	2.500 lb.

## LINESMAN RATCHET—1/2" Sq. Drive

Has large shifter bar to permit reversing when wearing bulky gloves.



Catalog No.	E.D.P. No.	Wt. Ea.
A-702KL	41435	1.500 lb.

## CABLE SHEATH STRIPPER

For stripping the jacket from all sizes of plastic and fabric covered cable.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-2878	18809	.500 lb.

### REPLACEMENT BLADES

Catalog No.	E.D.P. No.	Wt. Ea.
CT-2878-2	18809-02	.005 lb.

## CABLE TRIMMER

For "Ring" cutting the sheathing of INSIDE TYPE plastic, fabric or rubber covered cable. Two cutting blades are provided one for .020" thick insulation and the other for .030" insulation.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-2060	18810	.250 lb.

### REPLACEMENT BLADES

Catalog No.	Depth of Cut	E.D.P. No.	Wt. Ea.
CT-2060-11	For .020	18810-20	.050 lb.
CT-2060-8	For .030	18810-30	.060 lb.

## No. 110 WIRE STRIPPING PLIER

Handles up to No. 10 wire.

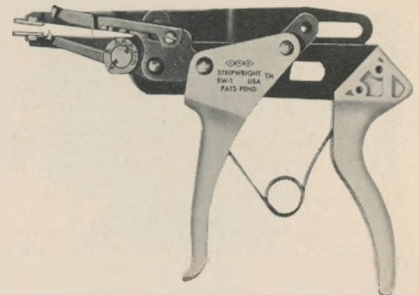
V notches nick insulation for clean, fast stripping of wire. Face ground edges cut soft wire up to No. 10 gauge. With yellow cushion grips.



Catalog No.	E.D.P. No.	Wt. Ea.
110-5C	15515-00	.164

## WIRE STRIPPER

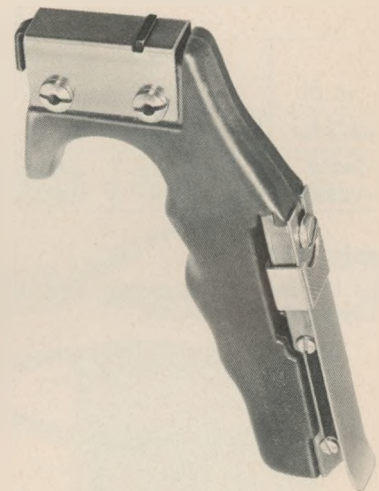
Gripping jaws hold wire while stripping jaws strip insulation making the strip a simple one-hand operation. Has adjustable strip length stop and cam adjustment for stripping wires from No. 12 to No. 26 gauge size.



Catalog No.	E.D.P. No.	Wt. Ea.
SW-1	18801	.345 lb.
SW-1L Lock	18802	.375 lb.

## 2 IN 1 COMBINATION CABLE TRIMMER STRIPPER

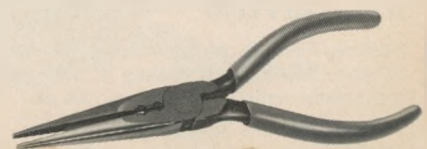
Butts and strips insulation on all sizes of plastic, fabric or rubber covered cable. Adjustable blade for .020 or .030 thick insulation.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-2860	18811-00	.189 lb.

## LONG CHAIN NOSE SIDE CUTTING PLIER

Side cutting edge is designed for radio and telephone work. Has serrated jaws and a 19 and 22 gauge stripper notch. Red cushion handles.



Catalog No.	E.D.P. No.	Wt. Ea.
B-5615	75615-00	.250 lb.

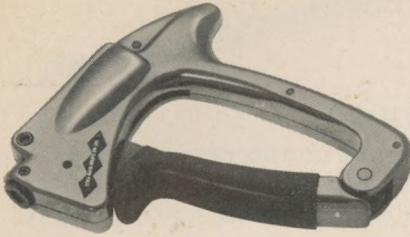
NOTE: FOR WARRANTY SEE PAGE 95.



# TELEPHONE AND ELECTRICAL TOOLS

## WIRE WRAPPING TOOL

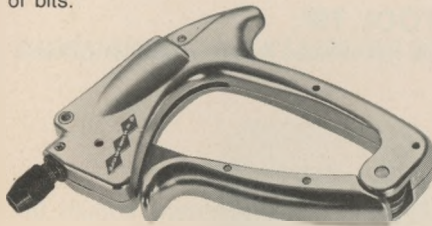
Hand operated tool suitable for either production line or field work. Makes 9 1/2 revolutions per stroke of trigger. RW-300 turns C-Clockwise for unwrapping.



Catalog No.	E.D.P. No.	Wt. Ea.
RW-100	18821	.718 lb.
RW-300	79831	.813 lb.

## WIRE WRAPPING TOOL

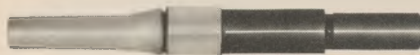
RW-200 has a collet chuck for quick change of bits.



Catalog No.	E.D.P. No.	Wt. Ea.
RW-200	18822	.718 lb.

## BITS & SLEEVES

Different sleeves are required depending on the size of the wire and the terminal. See tables below for selection of proper sleeve size.



### RW-100

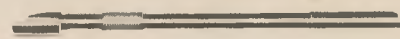
Catalog No.	E.D.P. No.	Wire Ga.	Wt. Ea.
RS-264	19164	26	.031 lb.
RS-244	19144	24	.031 lb.
RS-224	19124	22	.031 lb.
CT-131932-L33	19134	22-24	.031 lb.

### RW-200

Catalog No.	E.D.P. No.	Wire Ga.	Wt. Ea.
RS-263	19163	26	.031 lb.
RS-243	19143	24	.031 lb.
RS-223	19123	22	.031 lb.

## BITS

Wire and terminal specifications for bits are set forth in the tables below.

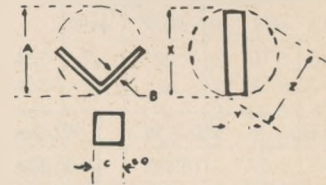


### TERMINAL DIMENSIONS

Wire Gauge No.	Sleeve Part Number	Bit Part Number	Bore Size Dia. of Bit	TERMINAL SPECIFICATIONS											
				Vee		Rectangular						Square			
				Max. A	Min. B	Rec. X	Y	Max. X	Y	Min. X	Y	Rec. C	Max. C	Min. C	
26	RS 264	RB 261	.075	.070	.010	.062	.031	.062	.040	.070	.040	.012	.045	.045	.030
24	RS 244	RB 241	.075	.070	.010	.062	.031	.062	.040	.070	.040	.012	.045	.045	.030
22	RS 224	RB 221	.087	.082	.012	.062	.031	.062	.058	.082	.062	.015	.045	.058	.035

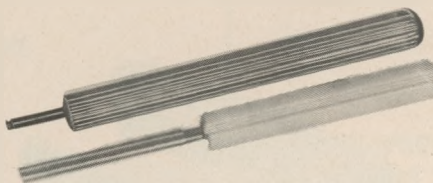
### BIT SPECIFICATIONS

Wire Gauge No.	Bit Part No.	Bore		Z	A	Wire Gauge No.	Sleeve Part No.
		X	Y				
26	RB261	.075	.800	2"	.162	26	RS 264
24	RB 241	.075	.800	2"	.162	24	RS 244
22	RB 221	.087	.800	1 3/4"	.190	22	RS 224

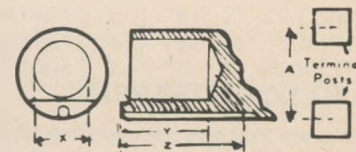


## UNWRAPPING TOOLS

This tool will rapidly remove within its range any solderless-wrapped connection.



Catalog No.	E.D.P. No.	Wire Ga.	Dirac.	Wt. Ea.
URW-2	18832	22&24	C-Clock.	.015
URW-3	18833	22&24	Clock.	.015
CT-3328	18834	22,24,26	C-Clock.	.094



### TOOL TIP:

Do not use a "cheater" or pipe for extra leverage.

### TOOL TIP:

Universal Sockets are real time savers but do not hold a spinning impact universal in your hand.

## HEATED UNWRAPPING TOOL

For removing soldered wrapped connections made with 22, 24 and 26 gauge wire.



Catalog No.	E.D.P. No.	Wt. Ea.
CT-16450	18840	1.875 lb.

### TOOL TIP:

Do not hit one hammer with another.

### TOOL TIP:

Avoid excessive heat on pliers and all other tools.

### TOOL TIP:

An adjustable wrench must be properly tightened and fully seated. Also avoid using too small a wrench.

### TOOL TIP:

Do not use punches and chisels with mushroomed heads. And to prevent scraped knuckles use a punch and chisel holder.

### TOOL TIP:

Do not abuse adapters. The top ratchet could damage the fastener while the bottom ratchet loses a lot of turning power.

NOTE: FOR WARRANTY SEE PAGE 95.



# PNEUMATIC POWER CUTTERS

## DIAGONAL PNEUMATIC POWER CUTTER

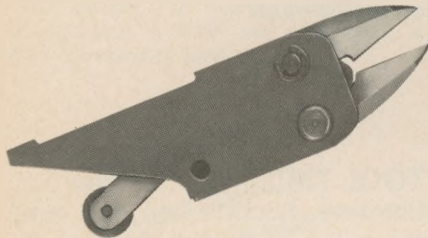
Tool operates at 40 psi to 90 psi air pressure, has an external adjusting screw for control of jaw opening, and may be used on many various applications simply by interchanging the variety of cutter heads listed below. May be used either right or left handed simply by rotating head 180°



Catalog No.	E.D.P. No.	Wt. Ea.
UA-200	18920	.813 lb.

## PNEUMATIC CUTTER HEAD

The jaws are machine ground from high speed steel with bevel edge geometry designed to cut .010 x .022 nickel ribbon and up to 1/8 diameter copper wire.



### SEMI FLUSH

Catalog No.	E.D.P. No.	Wt. Ea.
C-5A	74009	.157 lb.

## PNEUMATIC CUTTER HEAD

Precision beveled edges plus the mechanical advantage gained by use of the power unit are ideal for all around trimming of printed circuit boards and other production line cutting applications where speed is a necessity. Cuts soft drawn wire (T.S. 90,000 psi) up to .101" dia. at heel and .062" dia. at tip.



### REGULAR EDGE

Catalog No.	E.D.P. No.	Wt. Ea.
B-5	74005	.157 lb.

## PNEUMATIC CUTTER HEAD

Precision honed flush-edge is ideal for trimming printed circuit boards and other electronic sub-assemblies such as radio and TV chassis assembly. Cuts soft drawn wire (TS 90,000 psi) up to .062" dia.

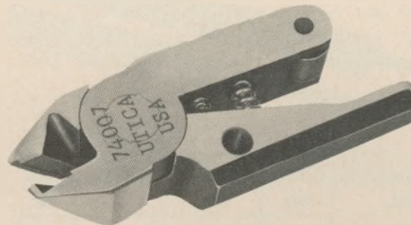


### FLUSH EDGE

Catalog No.	E.D.P. No.	Wt. Ea.
B-6	74006	.157 lb.

## PNEUMATIC CUTTER HEAD

Precision cut and crimp type jaws for cutting and crimping component leads on printed circuit boards. To eliminate components from falling off prior to the wave solder operation. Cuts and crimps soft drawn wires (TS 90,000 psi) up to .040" dia.



Catalog No.	E.D.P. No.	Wt. Ea.
B-7	74007	.157 lb.

## LIGHT DUTY PNEUMATIC POWER CUTTER

Tool operates at 40 psi to 90 psi depending on wire gauge. 8 ft. hose and 1/8" pipe fittings furnished.

75271 diagonal cutting head shown is standard. Cutter has semi-flush edges and is recommended for cutting .017" to .040" dia. soft drawn wire (T.S. 90,000 psi).



Catalog No.	E.D.P. No.		Wt. Ea.
UA-100	18910	unit with jaws	.390 lb.
75271	75271	jaws only	.125 lb.

NOTE: FOR WARRANTY SEE PAGE 95.

## TOOL TIP:

All wrenches should be flush and fully seated when used.

## TOOL TIP:

Use the correct hammer for each job. A body and fender hammer should never be used to strike punches and chisels.

## TOOL TIP:

Avoid excessive heat on pliers and all other tools.

## TOOL TIP:

Do not hit one hammer with another.

## TOOL TIP:

All electrical equipment should be properly grounded.

## TOOL TIP:

Torque wrenches are precision instruments, they are not to be used as a conventional wrench.

## TOOL TIP:

Keep electrical cords dry and replace frayed and broken wiring.

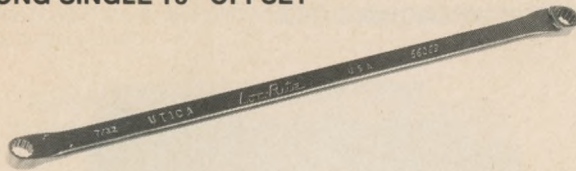
## TOOL TIP:

Use Phillips head screwdrivers for Phillips head screws.



# AEROSPACE SOCKETS & WRENCHES

## DOUBLE END BOX WRENCH LONG-SINGLE 15° OFFSET



E.D.P. No.	Federal Stock No.	Wr. Sizes	Max. O.D. Head	O.A. Length In. MM	Max. Head Hgt.
66069	5120-935-7358	7/32 & 1/4	1 1/32 X 3/8	8 203.2	1 3/16 X 7/32
66070	5120-935-7359	1/4 & 5/16	3/8 X 3/8	8 203.2	7/32 X 7/32
66043	5120-935-7360	1/4 & 5/16	3/8 X 29/64	8 203.2	7/32 X 1/4
66071	5120-935-7361	5/16 & 3/8	29/64 X 29/64	8 203.2	1/4 X 1/4
66040	5120-935-7362	5/16 & 3/8	29/64 X 17/32	8 203.2	1/4 X 17/64
66042	5120-935-7363	7/16 & 1/2	5/8 X 3/4	8 203.2	1/32 X 23/64

## SHORT SOCKETS 1/4" SQUARE DRIVE



E.D.P. No.	Federal Stock No.	Size	Max. O.D. Socket End	O.A. Length In. MM	Wt. Ea.
32006-11	5120-935-7430	3/16	19/64	7/8 22.2	.032
32007-11	5120-935-7431	7/32	11/32	7/8 22.2	.032
32008-11	5120-935-7432	1/4	3/8	7/8 22.2	.032
32009-11	5120-935-7433	9/32	27/64	7/8 22.2	.032
32010-11	5120-935-7434	5/16	29/64	7/8 22.2	.032
32011-11	5120-935-7435	11/32	1/2	7/8 22.2	.032
32012-11	5120-935-7436	3/8	17/32	7/8 22.2	.063
32014-11	5120-935-7437	7/16	5/8	7/8 22.2	.063
32016-11	5120-935-7438	1/2	3/4	7/8 22.2	.063

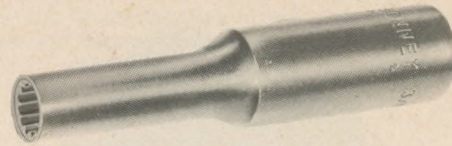
### BLACK OXIDE FINISH

Bonney Loc-Rite Aerospace tool dimensions are in accordance with SAE-Standard AS 954 for Aerospace Engine use.

Bonney Loc-Rite standard aerospace tools are designed and dimensioned to replace the majority of the thin wall special tools now currently required.

However, for particular applications, because of size or shape requiring a special tool not covered by the standard Bonney Loc-Rite aerospace tools, please ask your local Utica distributor for quotation.

## LONG SOCKETS 1/4" SQUARE DRIVE



E.D.P. No.	Federal Stock No.	Size	Max. O.D. Socket End	O.A. Length In. MM	Wt. Ea.
32006-21	5120-935-7455	3/16	19/64	2 50.8	.044
32007-21	5120-935-7456	7/32	11/32	2 50.8	.044
32008-21	5120-935-7457	1/4	3/8	2 50.8	.044
32009-21	5120-935-7458	9/32	27/64	2 50.8	.047
32010-21	5120-935-7459	5/16	29/64	2 50.8	.047
32011-21	5120-935-7460	11/32	1/2	2 50.8	.047
32012-21	5120-935-7461	3/8	17/32	2 50.8	.080
32014-21	5120-935-7462	7/16	5/8	2 50.8	.044
32016-21	5120-935-7463	1/2	3/4	2 50.8	.110

## TORQUE WRENCH ADAPTERS 1/4" AND 3/8" SQUARE DRIVE



E.D.P. No.	Wrench Sizes	Max. O.D. Heads	Lgth MM	Max. Head Hgt.	Wt. Ea.
<b>1/4" SQUARE DRIVE</b>					
66084	3/16	19/64	50.8	3/16	.063
66085	7/32	11/32	50.8	13/64	.063
66086	1/4	3/8	50.8	7/32	.063
66087	9/32	27/64	50.8	15/64	.070
66088	5/16	29/64	50.8	1/4	.084
<b>3/8" SQUARE DRIVE</b>					
66089	5/16	29/64	50.8	1/4	.084
66090	11/32	1/2	50.8	9/32	.070
66091	3/8	17/32	50.8	5/16	.070
66092	7/16	5/8	50.8	11/32	.070
66093	1/2	3/4	50.8	23/64	.044
66044	5/16	29/64	26.3	1/4	.047
66046	3/8	17/32	76.2	5/16	.094
* 66048	5/16	29/64	1.26	1/4	.067

\* DENOTES 90° BEND. HEIGHT 1 1/8" APPROX.



# SPECIAL PURPOSE SOCKETS

## UNIVERSAL 4 IN 1 SPARK PLUG HOLDING SOCKET FOR $\frac{1}{8}$ " AND $\frac{5}{16}$ " PLUGS

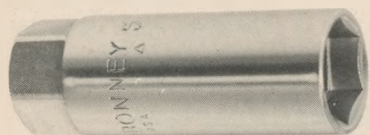
Supplied with adapter  $\frac{1}{8}$ " male and  $\frac{5}{16}$ " female with ball spring retainer. Also features  $\frac{1}{4}$ " hex drive. Can be used with any  $\frac{5}{16}$ " or  $\frac{1}{2}$ " drive handle, torque wrench or  $\frac{1}{4}$ " box or open end wrench. Thinwall design, hot broached for extra strength. Nickel chrome finish.



Catalog No.	E.D.P. No.	Opening	O.A. Length In. MM	O.D. Socket End	Wt. Lbs.
T-2026	39340	$\frac{5}{16} \times \frac{1}{8}$	$3\frac{1}{2}$ 81.8	$1\frac{1}{16}$	.500
T-2026-1	39340-01		Adapter		
T-2026-2	39340-02		Insert		

## $\frac{3}{8}$ SQUARE DRIVE 6 POINT $\frac{5}{16}$ SPARK PLUG SOCKET

Holding socket— $\frac{3}{8}$ " square drive, 6 pt. opening with neoprene holding insert for  $\frac{5}{16}$ " plugs.



Catalog No.	E.D.P. No.	Opening	O.A. Length In. MM	O.D. Socket End	Wt. Lbs.
TLH-20R	39320	$\frac{5}{16}$	$2\frac{1}{2}$ 63.5	$\frac{7}{8}$	.275

## NEOPREN SPARK PLUG SOCKET HOLDING INSERTS

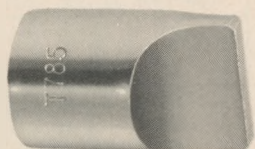
Neopren Holding Inserts for all of the above sockets.

(NOT ILLUSTRATED)

Catalog No.	E.D.P. No.	Description
Y-1050	39326-02	Fits TLH-26R—39326 and ALH-26R — 39426
T-2026-3	39340-03	Fits T-2026 — 39340
TLH-20-2	39320-02	Fits TLH-20R — 39320

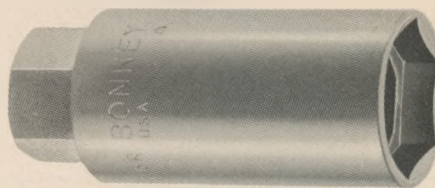
## DRAG LINK SOCKET

$\frac{3}{8}$ " square drive, Lgth.:  $1\frac{1}{2}$ ", Blade  $\frac{1}{16}$ " wide x .116" thick.



Catalog No.	E.D.P. No.	Wt. Lbs.
T-785	39339	.063

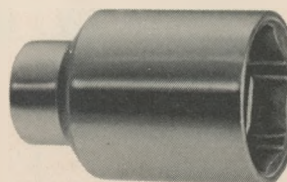
## $\frac{3}{8}$ " AND $\frac{1}{2}$ " SQUARE DRIVE 6-POINT—SPARK PLUG RETAINER SOCKET $\frac{3}{4}$ " MALE WRENCHING HEX



Catalog No.	E.D.P. No.	Opening	O.A. Length In. MM	O.D. Socket End	Wt. Lbs.
TLH26R	39326	$\frac{13}{16}$	$2\frac{1}{2}$ 63.5	$1\frac{1}{16}$	1.281
ALH26R	39426	$\frac{13}{16}$	$2\frac{1}{2}$ 63.5	$1\frac{1}{16}$	.280

## TWO-IN-ONE SOCKET, STOP LIGHT AND OIL PRESSURE LIGHT SWITCH

$\frac{3}{8}$ " drive, 2" long. Double recess services both switches.



Catalog No.	E.D.P. No.	Opening	O.A. Length In. MM	O.D. Socket End	Wt. Lbs.
T-750	39350	$1\frac{1}{2} \times 1\frac{1}{16}$	$2\frac{1}{8}$ 50.8	$1\frac{3}{8}$	.375

## DRAG LINK SOCKET

$\frac{1}{2}$ " square drive, Bit width  $\frac{1}{16}$ ", bit thickness .153", length  $1\frac{1}{8}$ ".



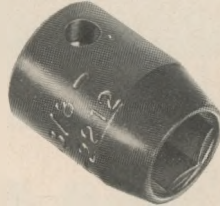
Catalog No.	E.D.P. No.	Wt. Lbs.
A-785	39439	.225



# 3/8" & 1/2" SQ. DR. POWER SOCKETS & ATTACHMENTS

Engineered for extra-rugged service on all types of power wrenches. Also popular for manual attachments where heavy use is required. Heavy-duty power sockets and attachments are all alloy steel with black oxide finish.

## 3/8" SQUARE DRIVE 6 POINT—REGULAR LENGTH SOCKETS



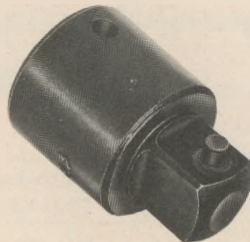
Catalog No.	E.D.P. No.	Opening	O.D. Socket End	O.D. Drive End	O.A. Length In. MM	Wt. Lbs.
P2212	32312-06	3/8	9/16	1 1/16	7/8 22.2	.062
P2214	32314-06	7/16	5/8	1 1/8	7/8 22.2	.062
P2216	32316-06	1/2	3/4	3/4	7/8 22.2	.070
P2218	32318-06	9/16	13/16	13/16	7/8 22.2	.083
P2220	32320-06	5/8	7/8	7/8	7/8 22.2	.118
P2222	32322-06	1 1/16	3 1/32	3 1/32	1 25.4	.187
P2224	32324-06	3/4	1 1/32	1 1/32	1 25.4	.187

## POWER EXTENSIONS—3/8" SQUARE DRIVE



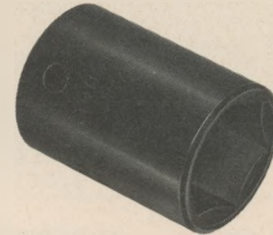
Catalog No.	E.D.P. No.	O.A. Length In.	O.A. Length MM	Wt. Lbs.
EP2-3	42303	3	76.2	.130
EP2-6	42306	6	152.4	.250

## POWER ADAPTERS



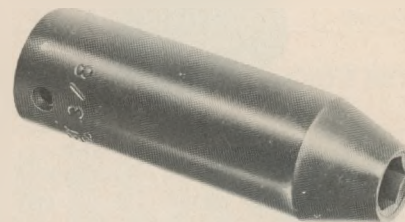
Catalog No.	E.D.P. No.	Female	Male	O.A. Length In. MM	Wt. Lbs.
AP23	42364	3/8	1/2	1 1/2 38.1	.20
AP32	42463	1/2	3/8	1 1/2 38.1	.26

## 1/2" SQUARE DRIVE 6 POINT—REGULAR LENGTH SOCKETS



Catalog No.	E.D.P. No.	Opening	O.D. Socket End	O.D. Drive End	O.A. Length In. MM	Wt. Lbs.
P3212	32412-06	3/8	5/8	1	1 1/2 38.1	.160
P3214	32414-06	7/16	23/32	1	1 1/2 38.1	.154
P3216	32416-06	1/2	25/32	1 1/16	1 1/2 38.1	.230
P3218	32418-06	9/16	7/8	1 1/16	1 1/2 38.1	.250
P3220	32420-06	5/8	81/64	1 1/8	1 1/2 41.3	.230
P3222	32422-06	1 1/16	1 1/32	1 1/8	1 1/2 41.3	.253
P3224	32424-06	3/4	1 1/8	1 1/8	1 1/2 41.3	.279
P3226	32426-06	13/16	1 3/16	1 3/16	1 1/2 41.3	.305
P3228	32428-06	7/8	1 5/16	1 5/16	1 1/2 41.3	.388
P3230	32430-06	15/16	1 3/8	1 3/8	1 1/2 47.6	.482
P3232	32432-06	1	1 7/16	1 7/16	1 1/2 47.6	.518
P3234	32434-06	1 1/16	1 1/2	1 1/2	2 50.8	.689
P3236	32436-06	1 1/8	1 5/8	1 5/8	2 50.8	.677
P3238	32438-06	1 3/8	1 11/16	1 11/16	2 50.8	.795
P3240	32440-06	1 1/4	1 25/32	1 25/32	2 50.8	.908

## 1/2" SQUARE DRIVE 6 POINT—DEEP SOCKETS



Catalog No.	E.D.P. No.	Opening	O.D. Socket End	O.D. Drive End	O.A. Length In. MM	Wt. Lbs.
P3212L	32412-07	3/8	5/8	1	3 3/4 82.6	.358
P3214L	32414-07	7/16	23/32	1	3 3/4 82.6	.381
P3216L	32416-07	1/2	25/32	1 1/16	3 3/4 82.6	.432
P3218L	32418-07	9/16	7/8	1 1/16	3 3/4 82.6	.427
P3220L	32420-07	5/8	81/64	1 1/8	3 3/4 82.6	.468
P3222L	32422-07	1 1/16	1 1/32	1 1/8	3 3/4 82.6	.524
P3224L	32424-07	3/4	1 1/8	1 1/8	3 3/4 82.6	.577
P3226L	32426-07	13/16	1 3/16	1 3/16	3 3/4 82.6	.617
P3228L	32428-07	7/8	1 5/16	1 5/16	3 3/4 88.9	.836
P3230L	32430-07	15/16	1 3/8	1 3/8	3 3/4 88.9	.919
P3232L	32432-07	1	1 7/16	1 7/16	3 3/4 88.9	.965



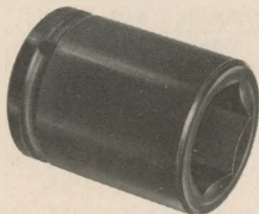
# 1/2" & 3/4" SQ. DR. POWER/IMPACT SOCKETS & ATTACHMENTS

## POWER EXTENSIONS—1/2" SQUARE DRIVE



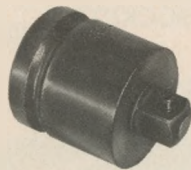
Catalog No.	E.D.P. No.	In.	O.A. Length MM	Wt. Lbs.
EP3-5	42405	5	127.0	.40
EP3-10	42410	10	254.0	.91

## 3/4" SQUARE DRIVE 6 POINT—REGULAR LENGTH IMPACT SOCKETS



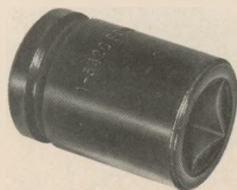
Catalog No.	E.D.P. No.	Opening	O.D. Socket End	O.D. Drive End	O.A. Length In. MM	Wt. Lbs.
I 5224	32624-06	3/4	1 1/4	1 1/8	2 1/8 57.2	.903
I 5226	32626-06	13/16	1 1/4	1 1/8	2 1/8 57.2	.923
I 5228	32628-06	7/8	1 1/2	1 1/8	2 1/4 57.2	.993
I 5230	32630-06	15/16	1 1/2	1 1/8	2 3/8 60.3	.850
I 5232	32632-06	1	1 1/2	1 1/8	2 3/8 60.3	.890
I 5234	32634-06	1 1/16	1 11/16	1 11/16	2 1/2 63.5	1.05
I 5236	32636-06	1 1/8	1 3/4	1 3/4	2 1/2 63.5	1.02
I 5238	32638-06	1 3/16	1 7/8	1 7/8	2 1/2 63.5	1.48
I 5240	32640-06	1 1/4	2	2	2 3/8 66.7	1.47
I 5242	32642-06	1 1/8	2 1/8	2 1/8	2 3/8 66.7	1.77
I 5244	32644-06	1 3/8	2 1/2	2 1/2	2 3/4 69.9	1.66
I 5246	32646-06	1 7/16	2 1/4	2 1/4	2 3/4 69.9	2.17
I 5248	32648-06	1 1/2	2 1/4	2 1/4	2 3/4 69.9	2.22

## POWER ADAPTERS



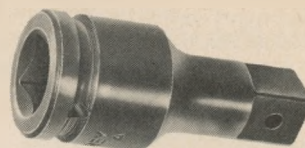
Catalog No.	E.D.P. No.	Female	Male	O.A. Length In. MM	Wt. Lbs.
AP53	42664	3/4	1/2	2 3/32 54.8	.64

## 3/4" SQUARE DRIVE—4 POINT REGULAR LENGTH (Budd Wheel Socket)



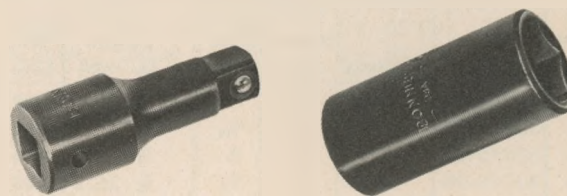
Catalog No.	E.D.P. No.	Opening	O.D. Socket End	O.D. Drive End	O.A. Length In. MM	Wt. Lbs.
I 5426	32626-04	13/16	1 1/8	1 1/8	2 1/4 57.2	1.01

## POWER EXTENSIONS—3/4" SQUARE DRIVE



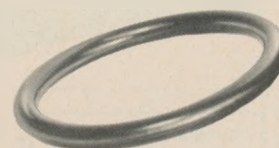
Catalog No.	E.D.P. No.	In.	O.A. Length MM	Wt. Lbs.
EP5-4	42604	3 1/2	88.9	1.20
EP5-10	42610	10	254.0	2.375

## 1/2" SQUARE DRIVE 2 IN 1 WHEEL LUG IMPACT SOCKET



Catalog No.	E.D.P. No.	Opening	O.A. Length In. MM	Wt. Lbs.
P-2426	39480	3/4 x 13/16	3 1/16 93.7	.765
P-2426-1	39480-01	Adapter Only		
P-2426-2	39480-02	Socket Only		

## "O" RINGS



Catalog No.	E.D.P. No.	Used on Socket Number	Wt. Ea.
RIB28	39048	I 5224 thru I 5242	.015
RIB32	39070	I 5244 thru I 5248 (Both regular and deep series)	.015

## THRU PINS



SP22	39022	I 5224 thru I 5242	.025
SP27	39027	I 5244 thru I 5248	.015

## TOOL TIP:

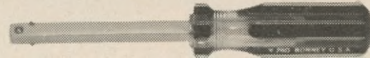
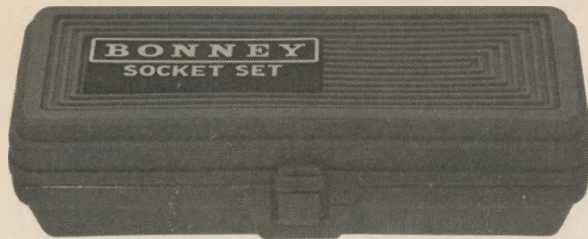
Do not use a "cheater" or pipe for extra leverage.



# 1/4" SQ. DR. SOCKET SETS

## B-80201 10 PIECE 1/4" DRIVE SOCKET SET

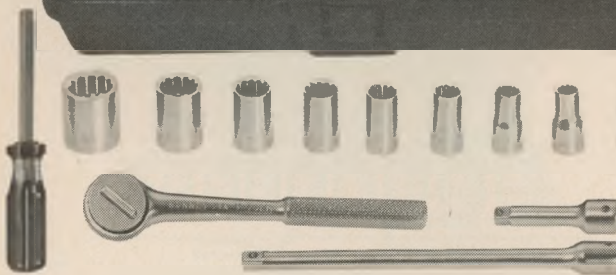
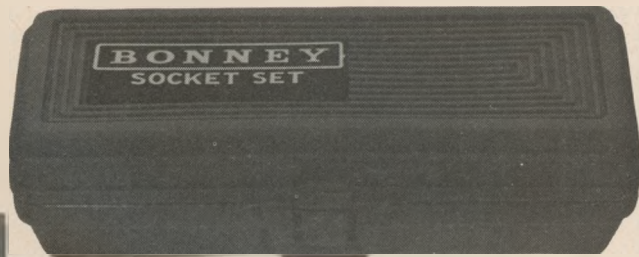
WEIGHT 1.375 LBS.



Catalog No.	E.D.P. No.	Size Opening	Description
V-6	32006-01	3/16	12 Lobe Socket
V-7	32007-01	7/32	12 Lobe Socket
V-8	32008-01	1/4	12 Lobe Socket
V-9	32009-01	9/32	12 Lobe Socket
V-10	32010-01	5/16	12 Lobe Socket
V-11	32011-01	11/32	12 Lobe Socket
V-12	32012-01	3/8	12 Lobe Socket
V-14	32014-01	7/16	12 Lobe Socket
V-16	32016-01	1/2	12 Lobe Socket
V-780	41248		6" Spinner Handle
	81581		Blow Molded Box

## B-80204 13 PIECE 1/4" DRIVE SOCKET SET

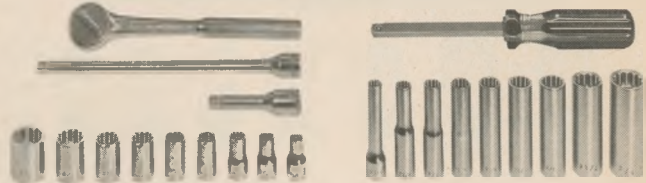
WEIGHT 1.250 LBS.



Catalog No.	E.D.P. No.	Size Opening	Description
V-6	32006-01	3/16	12 Lobe Socket
V-7	32007-01	7/32	12 Lobe Socket
V-8	32008-01	1/4	12 Lobe Socket
V-9	32009-01	9/32	12 Lobe Socket
V-10	32010-01	5/16	12 Lobe Socket
V-11	32011-01	11/32	12 Lobe Socket
V-12	32012-01	3/8	12 Lobe Socket
V-14	32014-01	7/16	12 Lobe Socket
V-16	32016-01	1/2	12 Lobe Socket
V-602	41202		2" Extension
V-606	41206		6" Extension
V-702K	41230		Reversible Ratchet
V-780	41248		6" Spinner Handle
	81581		Blow Molded Box

## B-80205 22 PIECE 1/4" DRIVE SOCKET SET

WEIGHT 2.250 LBS.



Catalog No.	E.D.P. No.	Size Opening	Description
V-6	32006-01	3/16	12 Lobe Reg. Socket
V-7	32007-01	7/32	12 Lobe Reg. Socket
V-8	32008-01	1/4	12 Lobe Reg. Socket
V-9	32009-01	9/32	12 Lobe Reg. Socket
V-10	32010-01	5/16	12 Lobe Reg. Socket
V-11	32011-01	11/32	12 Lobe Reg. Socket
V-12	32012-01	3/8	12 Lobe Reg. Socket
V-14	32014-01	7/16	12 Lobe Reg. Socket
V-16	32016-01	1/2	12 Lobe Reg. Socket
VL-6	32006-02	3/16	12 Lobe Deep Socket
VL-7	32007-02	7/32	12 Lobe Deep Socket
VL-8	32008-02	1/4	12 Lobe Deep Socket
VL-9	32009-02	9/32	12 Lobe Deep Socket
VL-10	32010-02	5/16	12 Lobe Deep Socket
VL-11	32011-02	11/32	12 Lobe Deep Socket
VL-12	32012-02	3/8	12 Lobe Deep Socket
VL-14	32014-02	7/16	12 Lobe Deep Socket
VL-16	32016-02	1/2	12 Lobe Deep Socket
V-602	41202		2" Extension
V-606	41206		6" Extension
V-702K	41230		Reversible Ratchet
V-780	41248		6" Spinner Handle
	81585		Blow Molded Box

## B-80206 9 PIECE 1/4" DRIVE SOCKET SET

WEIGHT .938 LBS.



Catalog No.	E.D.P. No.	Size Opening	Description
VL-6	32006-02	3/16	12 Lobe Deep Socket
VL-7	32007-02	7/32	12 Lobe Deep Socket
VL-8	32008-02	1/4	12 Lobe Deep Socket
VL-9	32009	9/32	12 Lobe Deep Socket
VL-10	32010-02	5/16	12 Lobe Deep Socket
VL-11	32011-02	11/32	12 Lobe Deep Socket
VL-12	32012-02	3/8	12 Lobe Deep Socket
VL-14	32014-02	7/16	12 Lobe Deep Socket
VL-16	32016-02	1/2	12 Lobe Deep Socket
	81577		Socket Tray

NOTE: FOR WARRANTY SEE PAGE 95.



## 3/8" SQ. DRIVE SOCKET SETS

### Set No. B-80301 7 PIECE 3/8" FLEX SOCKET SET

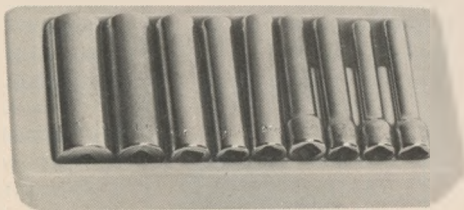
Weight 1.500 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
TU-12	33212-09	3/8	12 Lobe Flex Socket
TU-14	33214-09	7/16	12 Lobe Flex Socket
TU-16	33216-09	1/2	12 Lobe Flex Socket
TU-18	33218-09	9/16	12 Lobe Flex Socket
TU-20	33220-09	5/8	12 Lobe Flex Socket
TU-22	33222-09	11/16	12 Lobe Flex Socket
TU-24	33224-09	3/4	12 Lobe Flex Socket
	81596		Blow Molded Box

### Set No. B-80302 8 PIECE 3/8" DRIVE DEEP SOCKET SET

Weight 2.438 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
TLH-12	31312-07	3/8	6 Point Deep Socket
TLH-14	31314-07	7/16	6 Point Deep Socket
TLH-16	31316-07	1/2	6 Point Deep Socket
TLH-18	31318-07	9/16	6 Point Deep Socket
TLH-20	31320-07	5/8	6 Point Deep Socket
TLH-22	31322-07	11/16	6 Point Deep Socket
TLH-24	31324-07	3/4	6 Point Deep Socket
TLH-26	31326-07	13/16	6 Point Deep Socket
	81582		Blow Molded Box

#### TOOL TIP:

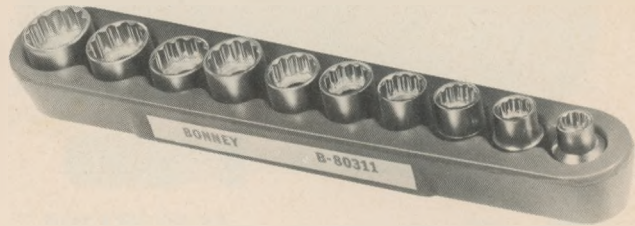
Keep electrical cords dry and replace frayed and broken wiring.

#### TOOL TIP:

All electrical equipment should be properly grounded.

### Set No. B-80311 10 PIECE 3/8" DRIVE SOCKET SET

Weight 1.189 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
T-10	33210-01	5/16	12 Lobe Socket
T-12	33212-01	3/8	12 Lobe Socket
T-14	33214-01	7/16	12 Lobe Socket
T-16	33216-01	1/2	12 Lobe Socket
T-18	33218-01	9/16	12 Lobe Socket
T-20	33220-01	5/8	12 Lobe Socket
T-22	33222-01	11/16	12 Lobe Socket
T-24	33224-01	3/4	12 Lobe Socket
T-26	33226-01	13/16	12 Lobe Socket
T-28	33228-01	7/8	12 Lobe Socket
	81579		Tray

### Set No. B-80307 12 PIECE 3/8" DRIVE SOCKET SET

Weight 2.875 lbs.



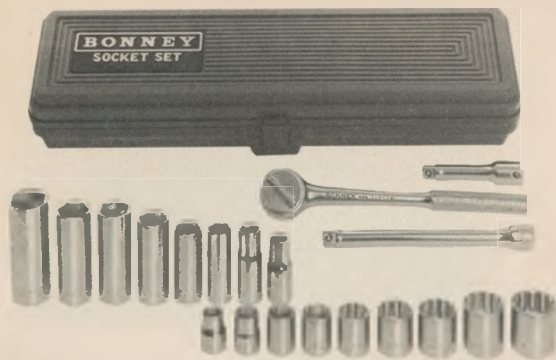
Catalog No.	E.D.P. No.	Size Opening	Description
TH-12	31312-06	3/8	6 Point Regular Socket
TH-14	31314-06	7/16	6 Point Regular Socket
TH-16	31316-06	1/2	6 Point Regular Socket
TH-18	31318-06	9/16	6 Point Regular Socket
T-20	33220-01	5/8	12 Lobe Regular Socket
T-22	33222-01	11/16	12 Lobe Regular Socket
T-24	33224-01	3/4	12 Lobe Regular Socket
T-26	32226-01	13/16	12 Lobe Regular Socket
T-28	32228-01	7/8	12 Lobe Regular Socket
T-603	41303		3" Extension
T-606	41306		6" Extension
T-702K	41330		Ratchet
	81584		Blow Molded Box



# 3/8" & 1/2" SQ. DR. SOCKET SETS

## Set No. B-80308 20 PIECE 3/8" DRIVE SOCKET SET

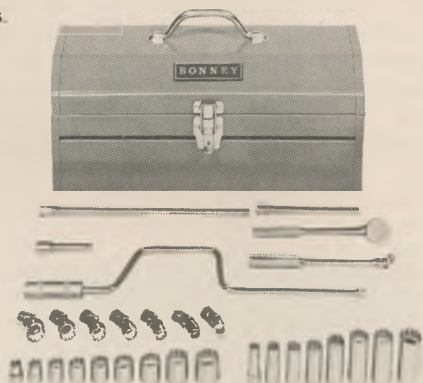
Weight 4.313 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
TH-12	31312-06	3/8	6 Point Regular Socket
TH-14	31314-06	7/16	6 Point Regular Socket
TH-16	31316-06	1/2	6 Point Regular Socket
TH-18	31318-06	9/16	6 Point Regular Socket
T-20	33220-01	5/8	12 Lobe Regular Socket
T-22	33222-01	11/16	12 Lobe Regular Socket
T-24	33224-01	3/4	12 Lobe Regular Socket
T-26	33226-01	13/16	12 Lobe Regular Socket
T-28	33228-01	7/8	12 Lobe Regular Socket
TLH-12	31312-07	3/8	6 Point Deep Socket
TLH-14	31314-07	7/16	6 Point Deep Socket
TLH-16	31316-07	1/2	6 Point Deep Socket
TLH-18	31318-07	9/16	6 Point Deep Socket
TLH-20	31320-07	5/8	6 Point Deep Socket
TLH-22	31322-07	11/16	6 Point Deep Socket
TLH-24	31324-07	3/4	6 Point Deep Socket
TLH-26	31326-07	13/16	6 Point Deep Socket
T-603	41303		3" Extension
T-606	41306		6" Extension
T-702K	41330		Reversible Ratchet
	81586		Blow Molded Box

## Set No. B-80309 30 PIECE 3/8" DRIVE SOCKET SET

Weight 12.625 lbs.



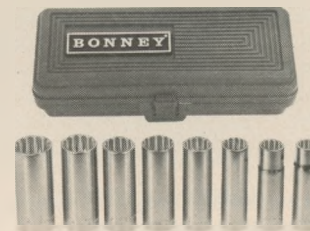
TH-12	31312-06	3/8	6 Point Regular Socket
TH-14	31314-06	7/16	6 Point Regular Socket
TH-16	31316-06	1/2	6 Point Regular Socket
TH-18	31318-06	9/16	6 Point Regular Socket
T-20	33220-01	5/8	12 Lobe Regular Socket
T-22	33222-01	11/16	12 Lobe Regular Socket
T-24	33224-01	3/4	12 Lobe Regular Socket
T-26	33226-01	13/16	12 Lobe Regular Socket
T-28	33228-01	7/8	12 Lobe Regular Socket
TL-12	33212-02	3/8	12 Lobe Deep Socket
TL-14	33214-02	7/16	12 Lobe Deep Socket
TL-16	33216-02	1/2	12 Lobe Deep Socket

## B-80309 SET (CONT.)

Catalog No.	E.D.P. No.	Size Opening	Description
TL-18	33218-02	9/16	12 Lobe Deep Socket
TL-20	33220-02	5/8	12 Lobe Deep Socket
TL-22	33222-02	11/16	12 Lobe Deep Socket
TL-24	33224-02	3/4	12 Lobe Deep Socket
TL-26	33226-02	13/16	12 Lobe Deep Socket
TU-14	33214-09	7/16	12 Lobe Flex Socket
TU-16	33216-09	1/2	12 Lobe Flex Socket
TU-18	33218-09	9/16	12 Lobe Flex Socket
TU-20	33220-09	5/8	12 Lobe Flex Socket
TU-22	33222-09	11/16	12 Lobe Flex Socket
TU-24	33224-09	3/4	12 Lobe Flex Socket
T-603	41303		3" Extension
T-606	41306		6" Extension
T-612	41312		12" Extension
T-742	41345		17" Speeder handle
T-720	41341		Hinge Handle
T-760	41390		U-Joint
T-702K	41330		Reversible Ratchet
	81616		Hip-Roof Metal Box

## Set No. B-80401 8 PIECE 1/2" DRIVE SOCKET SET

Weight 3.500 lbs.



AL-16	34216-02	1/2	12 Lobe Deep Socket
AL-18	34218-02	9/16	12 Lobe Deep Socket
AL-20	34220-02	5/8	12 Lobe Deep Socket
AL-22	34222-02	11/16	12 Lobe Deep Socket
AL-24	34224-02	3/4	12 Lobe Deep Socket
AL-26	34226-02	13/16	12 Lobe Deep Socket
AL-28	34228-02	7/8	12 Lobe Deep Socket
AL-30	34230-02	15/16	12 Lobe Deep Socket
	81583		Blow Molded Box

## Set No. B-80406 12 PIECE 1/2" DRIVE SOCKET SET

Weight 5.000 lbs.



AH-14	31414-06	7/16	6 Point Regular Socket
AH-16	31416-06	1/2	6 Point Regular Socket
AH-18	31418-06	9/16	6 Point Regular Socket
A-20	34220-01	5/8	12 Lobe Regular Socket
A-22	34222-01	11/16	12 Lobe Regular Socket
A-24	34224-01	3/4	12 Lobe Regular Socket
A-26	34226-01	13/16	12 Lobe Regular Socket
A-28	34228-01	7/8	12 Lobe Regular Socket
A-30	34230-01	15/16	12 Lobe Regular Socket
A-32	34232-01	1	12 Lobe Regular Socket
A-605	41405		5" Extension
A-702K	41430		Reversible Ratchet
	81588		Blow Molded Box

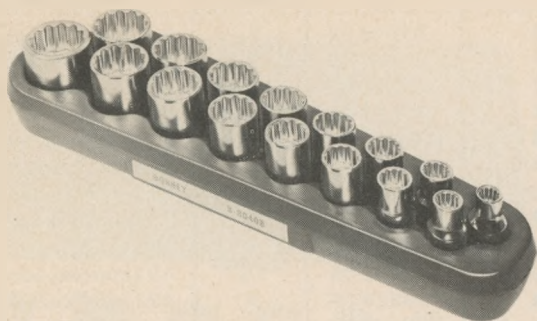
NOTE: FOR WARRANTY SEE PAGE 95.



# 1/2" SQ. DR. SOCKET SETS

## Set No. B-80408 16 PIECE 1/2" DRIVE SOCKET SET

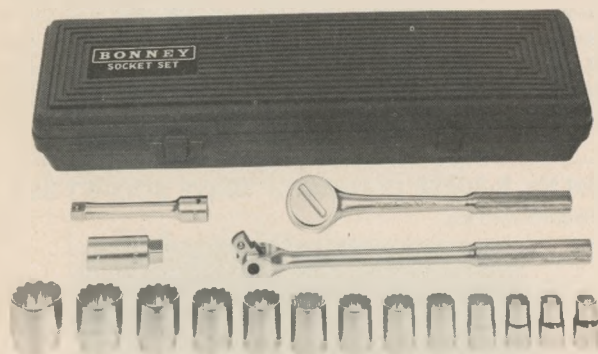
Weight 5.500 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
A-12	34212-01	3/16	12 Lobe Regular Socket
A-14	34214-01	7/16	12 Lobe Regular Socket
A-16	34216-01	1/2	12 Lobe Regular Socket
A-18	34218-01	5/8	12 Lobe Regular Socket
A-20	34220-01	3/4	12 Lobe Regular Socket
A-22	34222-01	13/16	12 Lobe Regular Socket
A-24	34224-01	7/8	12 Lobe Regular Socket
A-26	34226-01	15/16	12 Lobe Regular Socket
A-28	34228-01	1	12 Lobe Regular Socket
A-30	34230-01	1 1/16	12 Lobe Regular Socket
A-32	34232-01	1 1/8	12 Lobe Regular Socket
A-34	34234-01	1 1/4	12 Lobe Regular Socket
A-36	34236-01	1 3/8	12 Lobe Regular Socket
A-38	34238-01	1 7/8	12 Lobe Regular Socket
A-40	34240-01	1 1/2	12 Lobe Regular Socket
A-42	34242-01	1 5/8	12 Lobe Regular Socket
	81580		Tray

## Set No. B-80407 17 PIECE 1/2" DRIVE SOCKET SET

Weight 8.500 lbs.



AH-14	31414-06	7/16	6 Point Socket
AH-16	31416-06	1/2	6 Point Socket
AH-18	31418-06	9/16	6 Point Socket
A-20	34220-01	3/4	12 Lobe Socket
A-22	34222-01	13/16	12 Lobe Socket
A-24	34224-01	7/8	12 Lobe Socket
A-26	34226-01	15/16	12 Lobe Socket
A-28	34228-01	1	12 Lobe Socket
A-30	34230-01	1 1/16	12 Lobe Socket
A-32	34232-01	1 1/8	12 Lobe Socket
A-34	34234-01	1 1/4	12 Lobe Socket
A-36	34236-01	1 3/8	12 Lobe Socket
A-40	34240-01	1 1/2	12 Lobe Socket
ALH-26R	39426	13/16	6 Point S.P. Socket
A-605	41405		5" Extension
A-720	41440		Flex Handle
A-702K	41430		Reversible Ratchet
	81590		Blow Molded Box

## Set No. B-80470 22 PIECE 1/2" DRIVE SOCKET SET

Weight 15.875 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
AH-14	31414-06	7/16	6 Point Regular Socket
AH-16	31416-06	1/2	6 Point Regular Socket
AH-18	31418-06	9/16	6 Point Regular Socket
AH-20	31420-06	3/4	6 Point Regular Socket
A-22	34222-01	13/16	12 Lobe Socket
A-24	34224-01	7/8	12 Lobe Socket
A-26	34226-01	15/16	12 Lobe Socket
A-28	34228-01	1	12 Lobe Socket
A-30	34230-01	1 1/16	12 Lobe Socket
A-32	34232-01	1 1/8	12 Lobe Socket
A-34	34234-01	1 1/4	12 Lobe Socket
A-36	34236-01	1 3/8	12 Lobe Socket
A-40	34240-01	1 1/2	12 Lobe Socket
AL-20	34220-02	3/4	12 Lobe Deep Socket
AL-22	34222-02	13/16	12 Lobe Deep Socket
AL-24	34224-02	7/8	12 Lobe Deep Socket
AL-26	34226-02	15/16	12 Lobe Deep Socket
AL-28	34228-02	1	12 Lobe Deep Socket
A-605	41405		5" Extension
A-610	41410		10" Extension
A-724	41442		Flex Handle
A-702K	41430		Reversible Ratchet
81528	81528		Metal Box

### TOOL TIP:

Do not hit one hammer with another.

### TOOL TIP:

Avoid excessive heat on pliers and all other tools.

### TOOL TIP:

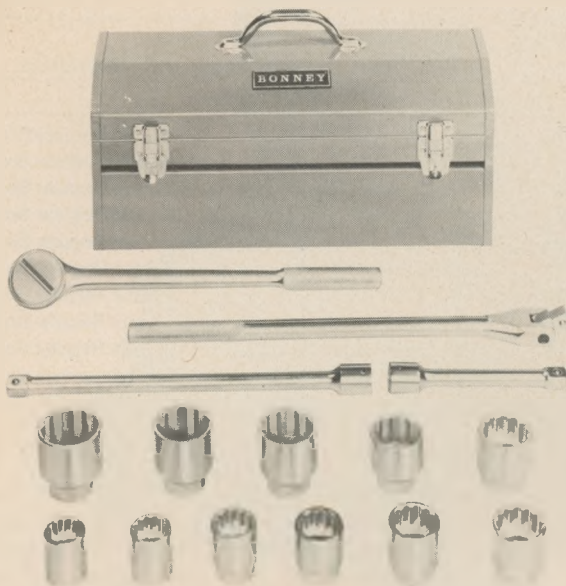
Regular wrenches are not made to be struck with hammers.



## 3/4" & 1" SQ. DR. SOCKETS SETS

### Set No. B-80602 15 PIECE 3/4" SQ. DRIVE SOCKET SET

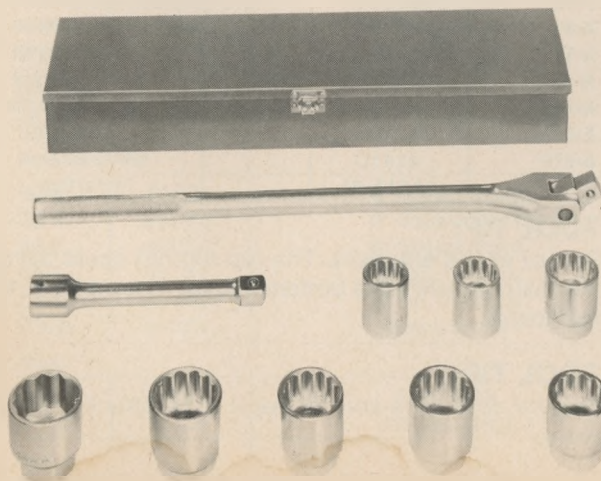
Weight 32.75 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
R-34	36234-01	1 1/16	12 Lobe Socket
R-36	36236-01	1 1/8	12 Lobe Socket
R-40	36240-01	1 1/4	12 Lobe Socket
R-42	36242-01	1 5/16	12 Lobe Socket
R-46	36246-01	1 7/16	12 Lobe Socket
R-48	36248-01	1 1/2	12 Lobe Socket
R-52	36252-01	1 5/8	12 Lobe Socket
R-54	36254-01	1 7/8	12 Lobe Socket
R-58	36258-01	1 13/16	12 Lobe Socket
R-60	36260-01	1 7/8	12 Lobe Socket
R-64	36264-01	2	12 Lobe Socket
R-609	41609		9" Extension
R-617	41617		17" Extension
R-720A	41641		Hinge Handle
R-702K	41630		Reversible Ratchet
	81615-91		Metal Box

### Set No. B-80601 10 PIECE 3/4" DRIVE SOCKET SET

Weight 17.688 lbs.

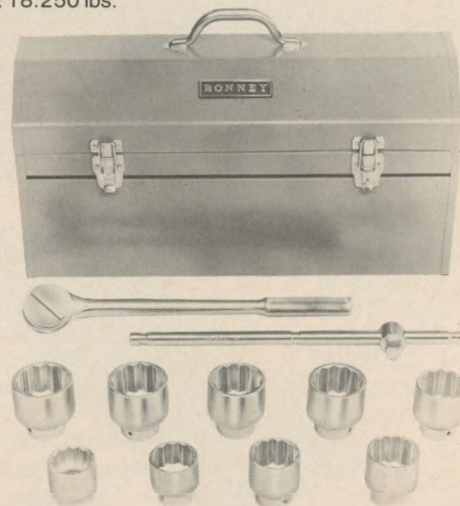


### B-80601 SET (CONT.)

Catalog No.	E.D.P. No.	Size Opening	Description
R-34	36234-01	1 1/16	12 Lobe Socket
R-36	36236-01	1 1/8	12 Lobe Socket
R-40	36240-01	1 1/4	12 Lobe Socket
R-42	36242-01	1 5/16	12 Lobe Socket
R-46	36246-01	1 7/16	12 Lobe Socket
R-48	36248-01	1 1/2	12 Lobe Socket
R-52	36252-01	1 5/8	12 Lobe Socket
R-54	36254-01	1 7/8	12 Point Socket
R-609	41609		9" Extension
R-720A	41641		Hinge Handle
MB-48	81048		Metal box, red, 5" deep, 21 1/2" long, 9" wide

### Set No. B-80860 11 PIECE 1" DRIVE SOCKET SET

Weight 18.250 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
X-46	31846-01	1 1/16	12 Point Regular Length
X-52	31852-01	1 1/8	12 Point Regular Length
X-58	31858-01	1 13/16	12 Point Regular Length
X-64	31864-01	2	12 Point Regular Length
X-70	31870-01	2 1/16	12 Point Regular Length
X-76	31876-01	2 1/8	12 Point Regular Length
X-80	31880-01	2 1/4	12 Point Regular Length
X-82	31882-01	2 5/16	12 Point Regular Length
X-96	31896-01	3	12 Point Regular Length
X-702K	41830		Reversible Ratchet
X-730	41844		Sliding "T"
	81617-91		Metal Box

#### TOOL TIP:

It is safer and easier to use one correct length extension instead of many.

#### TOOL TIP:

Only impact sockets and extensions should be used on impact wrenches.

#### TOOL TIP:

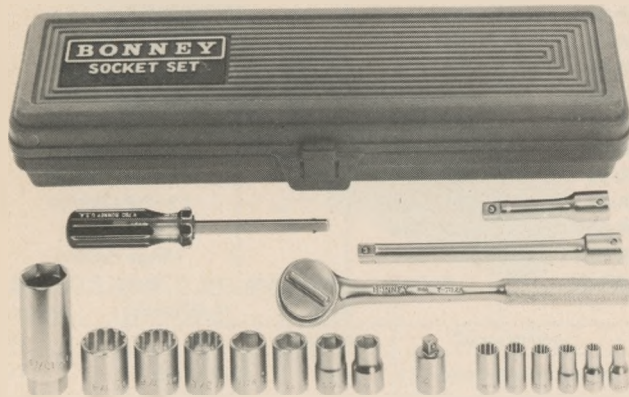
All wrenches should be flush and fully seated when used.



# MULTI-DRIVE PRE-DESIGNED SETS

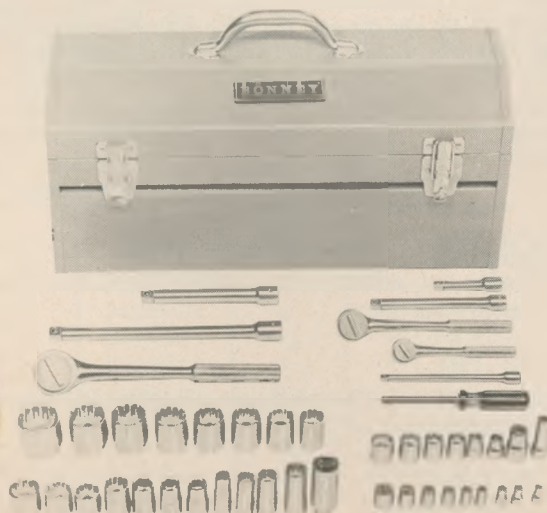
## Set No. B-80005 19 PIECE 1/4" & 3/8" DRIVE SOCKET SET

Weight 3.000 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
V-6	32006-01	3/16	12 Lobe Regular Socket
V-7	32007-01	7/32	12 Lobe Regular Socket
V-8	32008-01	1/4	12 Lobe Regular Socket
V-9	32009-01	9/32	12 Lobe Regular Socket
V-10	32010-01	5/16	12 Lobe Regular Socket
V-11	32011-01	11/32	12 Lobe Regular Socket
V-780	41248		Spinner
TH-12	31312-06	3/8	6 Point Regular Socket
TH-14	31314-06	7/16	6 Point Regular Socket
TH-16	31316-06	1/2	6 Point Regular Socket
TH-18	31318-06	9/16	6 Point Regular Socket
T-20	33220-01	5/8	12 Lobe Regular Socket
T-22	33222-01	11/16	12 Lobe Regular Socket
T-24	33224-01	3/4	12 Lobe Regular Socket
TLH-26R	39326		Spark Plug Socket
T-702K	41330		Reversible Ratchet
4216	41362		Adapter 3/8" F to 1/4" M
T-603	41303		3" Extension
T-606	41306		6" Extension
	81589		Blow Molded Box

## Set No. B-80003 46 PIECE 1/4", 3/8" & 1/2" DRIVE SOCKET SET



## B-80003 SET (CONT.)

Catalog No.	E.D.P. No.	Size Opening	Description
<b>1/4" Square Drive</b>			
V-6	32006-01	3/16	12 Lobe Regular Socket
V-7	32007-01	7/32	12 Lobe Regular Socket
V-8	32008-01	1/4	12 Lobe Regular Socket
V-9	32009-01	9/32	12 Lobe Regular Socket
V-10	32010-01	5/16	12 Lobe Regular Socket
V-11	32011-01	11/32	12 Lobe Regular Socket
V-12	32012-01	3/8	12 Lobe Regular Socket
V-14	32014-01	7/16	12 Lobe Regular Socket
V-16	32016-01	1/2	12 Lobe Regular Socket
V-780	41248		Spinner Handle
V-702K	41230		Reversible Ratchet
V-606	41206		6" Extension

<b>3/8" Square Drive</b>			
TH-12	31312-06	3/8	6 Point Regular Socket
TH-14	31314-06	7/16	6 Point Regular Socket
TH-16	31316-06	1/2	6 Point Regular Socket
TH-18	31318-06	9/16	6 Point Regular Socket
T-20	33220-01	5/8	12 Lobe Socket
T-22	33222-01	11/16	12 Lobe Socket
T-24	33224-01	3/4	12 Lobe Socket
T-26	33226-01	13/16	12 Lobe Socket
T-28	33228-01	7/8	12 Lobe Socket
TL-12	33212-02	3/8	12 Lobe Deep Socket
TL-14	33214-02	7/16	12 Lobe Deep Socket
TL-16	33216-02	1/2	12 Lobe Deep Socket
TL-18	33218-02	9/16	12 Lobe Deep Socket
TL-20	33220-02	5/8	12 Lobe Deep Socket
TLH-26R	39326		Spark Plug Socket
T-603	41303		3" Extension
T-606	41306		6" Extension
T-702K	41330		Reversible Ratchet

<b>1/2" Square Drive</b>			
AH-14	31414-06	7/16	6 Point Regular Socket
AH-16	31416-06	1/2	6 Point Regular Socket
AH-18	31418-06	9/16	6 Point Regular Socket
AH-20	31420-06	5/8	6 Point Regular Socket
A-22	34222-01	11/16	12 Lobe Socket
A-24	34224-01	3/4	12 Lobe Socket
A-26	34226-01	13/16	12 Lobe Socket
A-28	34228-01	7/8	12 Lobe Socket
A-30	34230-01	15/16	12 Lobe Socket
A-32	34232-01	1	12 Lobe Socket
A-34	34234-01	1 1/16	12 Lobe Socket
A-36	34236-01	1 1/8	12 Lobe Socket
A-40	34240-01	1 1/4	12 Lobe Socket
A-702K	41430		Reversible Ratchet
A-605	41405		5" Extension
A-610	41410		10" Extension
	81615-91		Metal Box

### TOOL TIP:

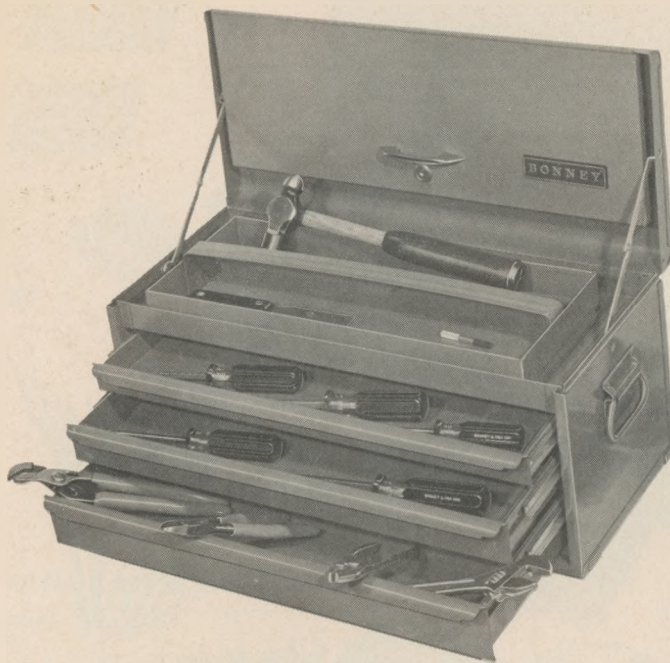
Do not abuse adapters. The top ratchet could damage the fastener while the bottom ratchet loses a lot of turning power.

### TOOL TIP:

Regular wrenches are not made to be struck with hammers.

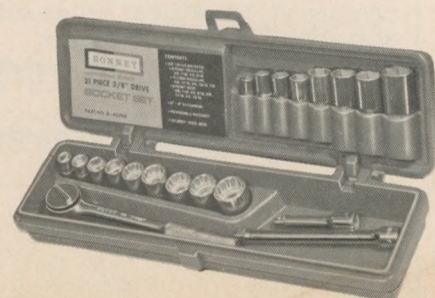
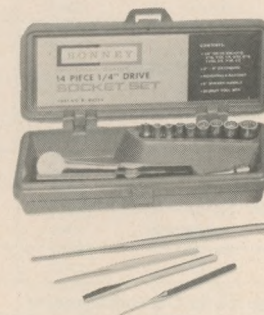
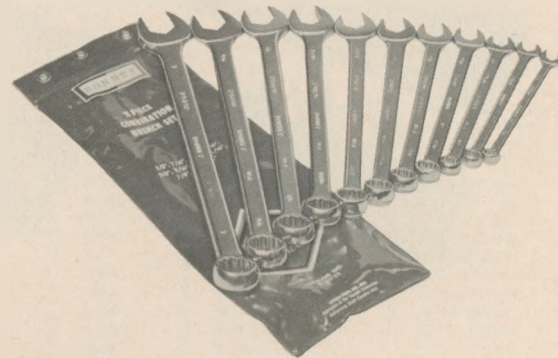


# MULTI-DRIVE PRE-DESIGNED SET



## Set No. B-80007 77 PIECE BASIC SERVICE SET DRIVE SOCKET SET

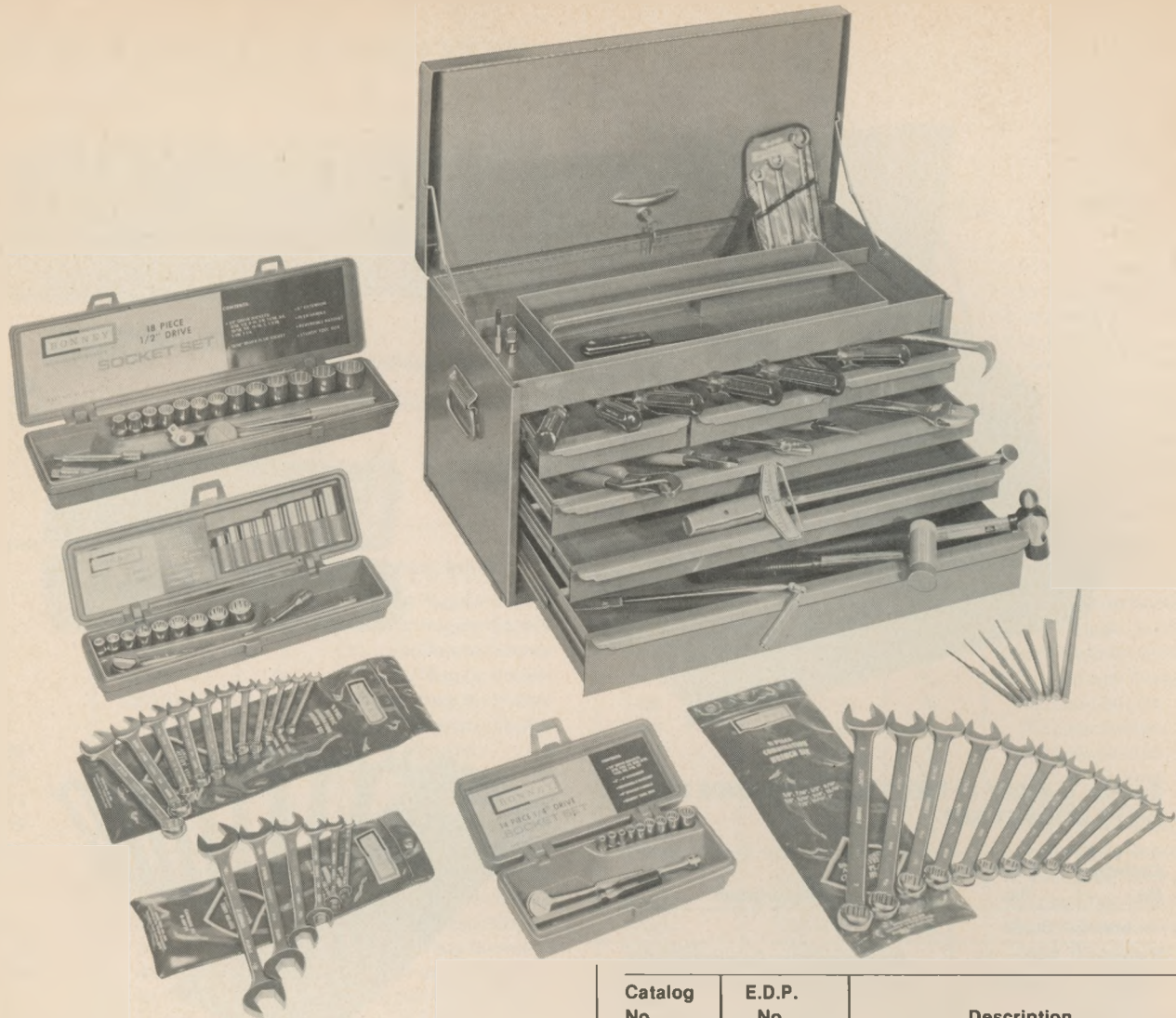
Catalog No.	E.D.P. No.	Description
<b>1/4 and 3/8" Drive</b>		
B-80201	80201-00	See Page 31 for Complete Listing
B-80308	80308-00	See Page 33 for Complete Listing
<b>1/2" Drive</b>		
B-80406	80406-00	See Page 33 for Complete Listing
<b>Comb. Wr.</b>		
B-80722	80722-00	See Page 57 for Complete Listing
<b>Pliers</b>		
8-8	11138-00	8" Slip Joint
39-7 C	13137-10	7" Diagonal
507-10 C	12230-10	10" Rib Joint
<b>Punches &amp; Chisels</b>		
C-2N	90316	3/8" Cold Chisel
C-28	90424	1/2" Cold Chisel
C-26	90486	3/8" Tapered Punch
C-34	90575	Center Punch
<b>Hammers</b>		
PF-16	90254	16 oz. Ball Pein
<b>Screwdrivers</b>		
SO-4	90074	4" Square Shank
SO-6	90076	6" Square Shank
SO-8	90078	8" Square Shank
CP-1	90141	3" No. 1 Phillips
CP-2	90142	4" No. 2 Phillips
SS-25	91851	Screw Starter
<b>Misc.</b>		
196	91647	Putty Knife
91-10	21101	10" Adjustable
<b>Box</b>		
MB-76	81076	Chest & Tote Tray



NOTE: FOR WARRANTY SEE PAGE 95.



# MULTI-DRIVE PRE-DESIGNED SET



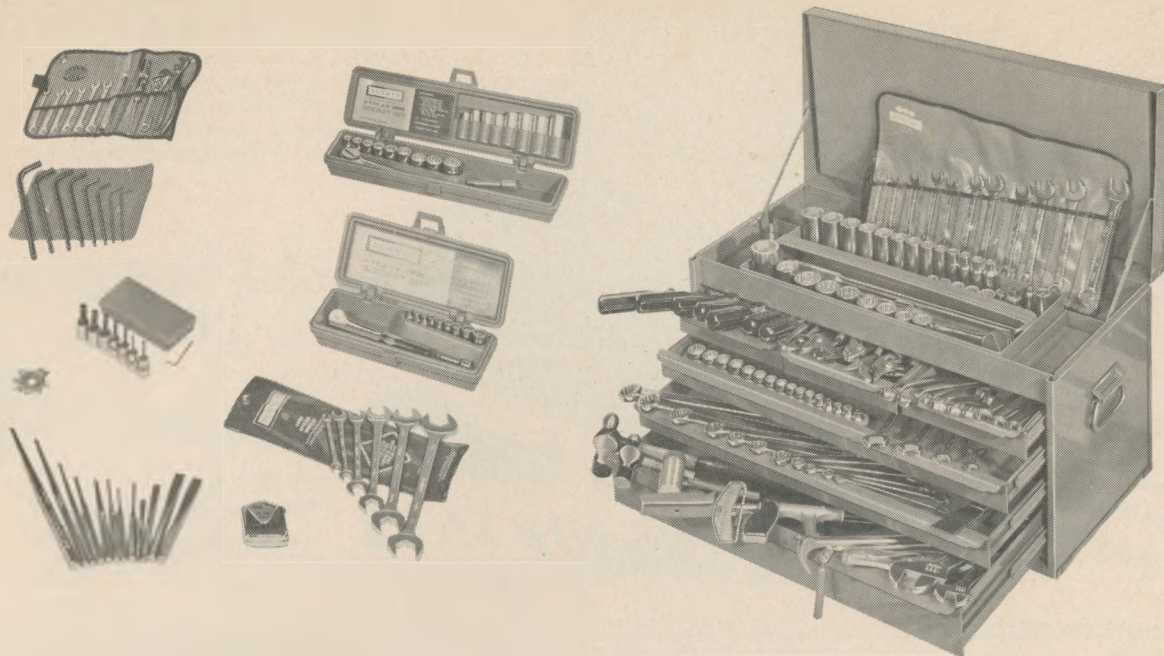
## Set No. B-80008 115 PIECE STANDARD SET

Catalog No.	E.D.P. No.	Description
<b>1/4" Drive</b>		
B-80204	80204-00	See Page 31 for Complete Listing
<b>3/8" Drive</b>		
B-80308	80308-00	See Page 33 for Complete Listing
4215	41364-00	Adapter
<b>1/2" Drive</b>		
B-80407	80407-00	See Page 34 for Complete Listing
<b>Open End Wr.</b>		
B-80726	80726-00	See Page 58 for Complete Listing
<b>Comb. Wr.</b>		
B-80722	80722-00	See Page 57 for Complete Listing
B-80724	80724-00	Metric Set See Page 53 for Complete Listing
<b>Flare Nut</b>		
B-82230	82230-09	See Page 55 for Complete Listing
<b>Pliers</b>		
8-8	11138-00	8" Slip Joint
39-7 C	13137-10	7" Diagonal
507-10 C	12230-10	10" Rib Joint
654-6 C	14216-10	6" Needle Nose

Catalog No.	E.D.P. No.	Description
<b>Punches &amp; Chisels</b>		
C-1	90314	1/4" Cold Chisel
C-2N	90318	3/8" Cold Chisel
C-28	90424	1/2" Cold Chisel
C-29	90428	5/32" Pin Punch
C-30	90432	1/4" Pin Punch
C-26	90486	3/16" Tapered Punch
C-34	90575	Center Punch
C-39	90604	Rolling Head Pinch Bar
<b>Hammers</b>		
PF-52	90261	16 oz. Soft Face
PF-16	90254	16 oz. Ball Pen
<b>Screwdrivers</b>		
SO-1	90062	1 1/4" Square Shank
SO-4	90074	4" Square Shank
SO-6	90076	6" Square Shank
SO-8	90078	8" Square Shank
CP-1	90141	3" No. 1 Tip Phillips
CP-2	90142	4" No. 2 Tip Phillips
SS-25	91851	Screw Starter
<b>Misc.</b>		
196	91647	Putty Knife
K-2	91812	Magnetic Pick-up
B-3150F	28901	Torque Wrench
91-10	21101	Adjustable
<b>Box</b>		
MB-82-1	81082	Chest



# MULTI-DRIVE MASTER MECHANICS SET



## Set No. B-80009 189 PIECE MASTER MECHANICS SET

Catalog No.	E.D.P. No.	Description	Size Opening
B-80204	80204-00	1/4" Dr. Soc. Set See page 31 for Complete Listing	
B-80308	80308-00	3/8" Dr. Soc. Set See Page 33 for Complete Listing	
B-80310	80310-00	3/4" Dr. Metric Soc. Set See Page 52 for Complete Listing	
B-80713	80713-00	Met. Comb. Wr. Set See Page 53 for Complete Listing	
N11R	82011	11 Pc. Ignition Wr. Set See Page 58 for Complete Listing	
1/2" Drive			
A-14	34214-01	12 Lobe Regular Socket	3/16
A-16	34216-01	12 Lobe Regular Socket	1/8
A-18	34218-01	12 Lobe Regular Socket	5/16
A-20	34220-01	12 Lobe Regular Socket	3/8
A-22	34222-01	12 Lobe Regular Socket	7/16
A-24	34224-01	12 Lobe Regular Socket	1/2
A-26	34226-01	12 Lobe Regular Socket	5/8
A-28	34228-01	12 Lobe Regular Socket	3/4
A-30	34230-01	12 Lobe Regular Socket	7/8
A-32	34232-01	12 Lobe Regular Socket	1
A-34	34234-01	12 Lobe Regular Socket	1 1/8
A-36	34236-01	12 Lobe Regular Socket	1 1/4
A-40	34240-01	12 Lobe Regular Socket	1 1/2
ALH-12	31412-07	6 Point Deep Socket	3/16
ALH-14	31414-07	6 Point Deep Socket	1/8
ALH-16	31416-07	6 Point Deep Socket	5/16
ALH-18	31418-07	6 Point Deep Socket	3/8
ALH-20	31420-07	6 Point Deep Socket	7/16
ALH-22	31422-07	6 Point Deep Socket	1/2
ALH-24	31424-07	6 Point Deep Socket	5/8
ALH-26	31426-07	6 Point Deep Socket	3/4
ALH-28	31428-07	6 Point Deep Socket	7/8
ALH-30	31430-07	6 Point Deep Socket	1
ALH-32	31432-07	6 Point Deep Socket	1 1/8
ALH-34	31434-07	6 Point Deep Socket	1 1/4
ALH-36	31436-07	6 Point Deep Socket	1 1/2
ALH-40	31440-07	6 Point Deep Socket	1 3/4
A-602	41402	2" Extension	
A-605	41405	5" Extension	
A-610	41410	10" Extension	
A-702K	41430	Reversible Ratchet	
A-724	41442	Hinge Handle	
A-760	41490	Universal Joint	
E-1214	22109	Open End Wr.	3/8 x 1/8
E-1618	22117	Open End Wr.	1/2 x 1/8
E-2024	22127	Open End Wr.	3/4 x 3/8
E-2426	22131	Open End Wr.	1 x 1/2
2804	24613	12 Lobe Box End Wr. Short	3/8 x 1/8
2805	24615	12 Lobe Box End Wr. Short	1/2 x 1/8
2807 B	24619	12 Lobe Box End Wr. Short	3/4 x 3/8
2804 L	24103	12 Lobe Box End Wr. Long	3/8 x 1/8
2805-L	24105	12 Lobe Box End Wr. Long	1/2 x 1/8
2807 A	24109	12 Lobe Box End Wr. Long	3/4 x 1/2
1112	25712	12 Lobe	3/8
1114	25714	12 Lobe Comb. Wr. Long	1/8
1116	25716	12 Lobe Comb. Wr. Long	1/2
1118	25718	12 Lobe Comb. Wr. Long	3/4

Catalog No.	E.D.P. No.	Description	Size Opening
1120	25720	12 Lobe Comb. Wr. Long	3/8
1122	25722	12 Lobe Comb. Wr. Long	1/2
1124	25724	12 Lobe Comb. Wr. Long	3/4
1167 A	25726	12 Lobe Comb. Wr. Long	1 1/8
1167	25728	12 Lobe Comb. Wr. Long	1 1/2
1168	25730	12 Lobe Comb. Wr. Long	1 3/8
1170	25732	12 Lobe Comb. Wr. Long	1 1/2
RF-51	22323	12 Lobe Flare Nut Wr.	3/8 x 1/8
RF-52	22325	12 Lobe Flare Nut Wr.	1/2 x 1/8
RF-53	22327	12 Lobe Flare Nut Wr.	3/4 x 1 1/8
C-1N	90312	1/2" Cold Chisel	
C-1	90314	3/8" Cold Chisel	
C-2N	90316	1/2" Cold Chisel	
C-2A	90318	3/4" Cold Chisel	
C-28	90424	1/4" Pin Punch	
C-29-5	90426	5/16" Pin Punch	
C-29	90428	3/8" Pin Punch	
C-30	90432	1/2" Pin Punch	
C-25-4	90482	3/8" Tapered Punch	
C-26	90486	1/2" Tapered Punch	
C-27N	90488	3/4" Tapered Punch	
C-34	90575	Center Punch	
C-39	90604	Rolling Head Pinch Bar	
PF-52	90261	16 oz. Soft Face Hammer	
PF-8	90252	8 oz. Ball Pein Hammer	
PF-16	90254	16 oz. Ball Pein Hammer	
SO-1	90062	1 1/4" Square Shank Screwdr.	
SO-4	90074	4" Square Shank Screwdr.	
SO-6	90076	6" Square Shank Screwdr.	
SO-8	90078	8" Square Shank Screwdr.	
SO-12	90082	12" Square Shank Screwdr.	
CP-1	90141	3" No. 1 Tip Phillips Screwdr.	
CP-2	90142	4" No. 2 Tip Phillips Screwdr.	
CP-3	90143	6" No. 3 Tip Phillips Screwdr.	
CP-11	90151	1" No. 1 Tip Phillips Screwdr.	
SS-25	91851	Screw Starter	
8-6	11136	6" Slip Joint Plier	
8-8	11138	8" Slip Joint Plier	
39-7C	13137-10	7" Diagonal Plier	
507-6 1/2 C	12236-10	6 1/2" Rib Joint Plier	
507-10C	12230-10	10" Rib Joint Plier	
654-6C	14216-10	6" Needle Nose Plier	
534-7C	18117-10	7" Lock-Ring Plier	
B-102	18850	Plier Wrench	
2628	91428	Hacksaw Frame	
T-750	39350	Stop Light-Oil Pressure Socket	
196	91647	Putty Knife	
194	91610	10" Steel Tape	
K-2	91812	Magnetic Pick-up Tool	
B3150-F	28901	Torque Wrench	
K-67	91270	Feeler Gauge	
N-7R	82007	Hex Key Set	
91-12	21121	12" Adjustable	
91-8	21081	8" Adjustable	
MB-82-1	81082	Chest	
AT-31	41303-09	3" Wobble Extension	
T-2026	39340	Universal 2-1 S.P. Socket	
TW-B	84906	9 Pc. Hex Key Socket Set	

NOTE: FOR WARRANTY SEE PAGE 95.



# MULTI-DRIVE SUPER SERVICE SET



## Set No. B-80010 295 PIECE SUPER SERVICE SET

Catalog No.	E.D.P. No.	Description
B-80204	80204-00	1/4" Dr. Soc. Set See Page 31 For Complete Listing
B-80310	80310-00	3/8" Dr. Met. Soc. Set See Page 52 for Complete Listing
B-60003	60003-00	Flare Nut Wr. Set See Page 55 For Complete Listing
B-80710	80710-00	Comb. Wr. Set See Page 57 for Complete Listing
N-11R	82011-00	Ign. Wr. Set See Page 58 for Complete Listing
<b>1/2" Drive</b>		
TH-8	31308-06	6 Pt. Reg. Soc. 1/4"
T-10	33210-01	12 Lobe Reg. Soc. 3/16"
T-12	33212-01	12 Lobe Reg. Soc. 1/8"
T-14	33214-01	12 Lobe Reg. Soc. 7/16"
T-16	33216-01	12 Lobe Reg. Soc. 1/2"
T-18	33218-01	12 Lobe Reg. Soc. 9/16"
T-20	33220-01	12 Lobe Reg. Soc. 5/8"
T-22	33222-01	12 Lobe Reg. Soc. 11/16"
T-24	33224-01	12 Lobe Reg. Soc. 3/4"
T-26	33226-01	12 Lobe Reg. Soc. 13/16"
T-28	33228-01	12 Lobe Reg. Soc. 7/8"
TLH-12	31312-07	6 Pt. Dp. Soc. 3/8"
TLH-14	31314-07	6 Pt. Dp. Soc. 7/16"
TLH-16	31316-07	6 Pt. Dp. Soc. 1/2"
TLH-18	31318-07	6 Pt. Dp. Soc. 9/16"
TLH-20	31320-07	6 Pt. Dp. Soc. 5/8"
TLH-22	31322-07	6 Pt. Dp. Soc. 11/16"
TLH-24	31324-07	6 Pt. Dp. Soc. 3/4"
TLH-26	31326-07	6 Pt. Dp. Soc. 13/16"
TU-12	33212-09	12 Lobe Flex. Soc. 3/16"
TU-14	33214-09	12 Lobe Flex. Soc. 7/16"
TU-16	33216-09	12 Lobe Flex. Soc. 1/2"
TU-18	33218-09	12 Lobe Flex. Soc. 9/16"
TU-20	33220-09	12 Lobe Flex. Soc. 5/8"
TU-22	33222-09	12 Lobe Flex. Soc. 11/16"
TU-24	33224-09	12 Lobe Flex. Soc. 3/4"
T-2026	39340	Spark Plug Hold. Soc.
AT-31	41303-09	Extension 3"
T-601	41302	Extension 1 1/2"
T-603	41303	Extension 3"
T-606	41306	Extension 6"
T-612	41312	Extension 12"
T-702K	41330	Rev. Ratchet 7"
T-703K	41332	Flex. Ratchet 10 1/2"
T-720	41341	Hinge Hdl. 7 1/2"
T-742	41345	Speeder Hdl. 17"
T-760	41390	Univ. Jnt. 1 1/4"
TWB	84906	Hex Key Set
<b>3/4" Drive</b>		
A-14	34214-01	Reg. Soc. 1/2"
A-16	34216-01	Reg. Soc. 5/8"
A-18	34218-01	Reg. Soc. 3/4"
A-20	34220-01	Reg. Soc. 7/8"
A-22	34222-01	Reg. Soc. 1 1/8"

Catalog No.	E.D.P. No.	Description
A-24	34224-01	Reg. Soc. 1 1/4"
A-26	34226-01	Reg. Soc. 1 1/2"
A-28	34228-01	Reg. Soc. 1 3/4"
A-30	34230-01	Reg. Soc. 1 7/8"
A-32	34232-01	Reg. Soc. 2"
A-34	34234-01	Reg. Soc. 2 1/8"
A-36	34236-01	Reg. Soc. 2 1/4"
A-40	34240-01	Reg. Soc. 2 1/2"
A-42	34242-01	Reg. Soc. 2 3/4"
ALH-12	31412-07	Dp. Soc. 3/8"
ALH-14	31414-07	Dp. Soc. 7/16"
ALH-16	31416-07	Dp. Soc. 1/2"
ALH-18	31418-07	Dp. Soc. 9/16"
ALH-20	31420-07	Dp. Soc. 5/8"
ALH-22	31422-07	Dp. Soc. 11/16"
ALH-24	31424-07	Dp. Soc. 3/4"
ALH-26	31426-07	Dp. Soc. 7/8"
ALH-28	31428-07	Dp. Soc. 1"
ALH-40	31430-07	Dp. Soc. 1 1/8"
ALH-32	31432-07	Dp. Soc. 1 1/4"
ALH-34	31434-07	Dp. Soc. 1 1/2"
ALH-36	31436-07	Dp. Soc. 1 3/4"
ALH-40	31440-07	Dp. Soc. 2"
A-602	41402	Extension 2"
A-605	41405	Extension 5"
A-610	41410	Extension 10"
A-702K	41430	Rev. Ratchet 10"
A-724	41442	Hinge Hdl. 18"
A-760	41490	Univ. Jnt. 1 1/4"
A-744	41445	Speeder Hdl. 17 1/2"
<b>1/2" Square Drive</b>		
R-34	36234-01	Reg. Soc. 1 1/8"
R-36	36236-01	Reg. Soc. 1 1/4"
R-40	36240-01	Reg. Soc. 1 1/2"
R-42	36242-01	Reg. Soc. 1 3/4"
R-46	36246-01	Reg. Soc. 1 7/8"
R-48	36248-01	Reg. Soc. 2"
R-52	36252-01	Reg. Soc. 2 1/8"
R-56	36256-01	Reg. Soc. 2 1/4"
R-60	36260-01	Reg. Soc. 2 1/2"
R-64	36264-01	Reg. Soc. 2 3/4"
R-609	41609	Extension 9"
R-720A	41641	Hinge Hdl. 20 1/2"
4299	41664	Adapter
2700	24940	Hfmm. Style Wr. 1/2" x 3/4"
2701	24946	Hfmm. Style Wr. 3/4" x 1"
2804L	24103	12 Lobe Box Wr. Long 3/4" x 1 1/8"
2805L	24105	12 Lobe Box Wr. Long 1/2" x 1 1/8"
2807A	24109	12 Lobe Box Wr. Long 3/4" x 1 1/4"
2808	24112	12 Lobe Box Wr. Long 3/4" x 1 1/2"
8-6	11136	Comb. Slip-Jnt. Plier
8-8	11138	Comb. Slip-Jnt. Plier
8-10	11130	Comb. Slip-Jnt. Plier
39-7C	13137-10	H. D. Diag. Plier
507-81C	12236-10	"Rib-Jnt." Ut. Plier
507-10C	12230-10	"Rib-Jnt." Ut. Plier
507-14C	12234	"Rib-Jnt." Ut. Plier
524-7C	18217-10	Angle Nose Bat. Plier
534-7C	18117-10	Lock Rng. Plier
654-6C	14216-10	Lng. Ch. Nose Plier
B-75	18818	Wire Hose Clamp Plier
B-65	84001	Snap Rng. Set Plier
B-74	18256	Spark Plug Terminal Plier

Catalog No.	E.D.P. No.	Description
B-102	18850	Plier Wrench
E-1214	22109	Dbl. End Wr. 3/4" x 3/8"
E-1618	22117	Dbl. End Wr. 1/2" x 3/8"
E-1820	22119	Dbl. End Wr. 9/16" x 3/8"
E-2024	22127	Dbl. End Wr. 5/8" x 3/8"
E-2426	22131	Dbl. End Wr. 3/4" x 1/2"
E-3032	22141	Dbl. End Wr. 1 1/8" x 1"
2804	24613	12 Lobe Box Wr. Set 3/4" x 3/8"
2807B	24619	12 Lobe Box Wr. Set 3/4" x 3/8"
2805	24615	12 Lobe Box. Wr. Set 1/2" x 3/8"
C-1N	90312	Flat Chisel 1/4"
C-1	90314	Flat Chisel 3/8"
C-2N	90316	Flat Chisel 1/2"
C-2A	90318	Flat Chisel 5/8"
C-3	90320	Flat Chisel 3/4"
C-4	90322	Flat Chisel 7/8"
C-28-7	90422	Pin Pch. 1/4"
C-28	90424	Pin Pch. 3/8"
C-29-5	90426	Pin Pch. 1/2"
C-29	90428	Pin Pch. 5/8"
C-29-7	90430	Pin Pch. 3/4"
C-30	90432	Pin Pch. 7/8"
C-30-10	90434	Pin Pch. 1"
C-25-4	90482	Taper Chisel 1/4"
C-25	90484	Taper Chisel 3/8"
C-26	90486	Taper Drift 1/2"
C-27N	90488	Taper Drift 5/8"
C-32	90570	Prick Pch. 3/8"
C-34	90575	Cntr. Pch. 1/2"
C-38-8	90601	Jimmy Pry 4"
C-39	90604	Rolling Hd. Pinch
PF-52	90261	Soft Face Hammer
PF-8	90252	Ball Pein Hammer
PF-16	90254	Ball Pein Hammer
SO-1	90062	Std. Tip 1 1/2"
SO-4	90074	Std. Tip 4" Screwdr.
SO-6	90076	Std. Tip 6" Screwdr.
SO-8	90078	Std. Tip 8" Screwdr.
SO-12	90082	Std. Tip 12" Screwdr.
CP-0	90140	Phillips 2" Screwdr.
CP-1	90142	Phillips 4" Screwdr.
CP-3	90143	Phillips 6" Screwdr.
CP-11	90151	Stubby 1" Screwdr.
SS-25	91851	Starters 2 1/2"
SSN-6	91863	Starters 6"
2623	91423	Hacksaw Frame
91-12	21121	12" Adjustable
RF-100B	84905	Dbl. Flaring Tl. Set
T-750	39350	Stoplight-Oil Pressure Soc.
198	91648	Carbon Scraper
196	91647	Putty Knife
IG-300	92100	Bat. Terminal Cleaner
194-L	91610-10	10' Steel Tape
K-2	91812	Mag. Pick-Up Tl.
2432	92132	Scratch Brush
TC1200FR	28409	Torque Wrench
SER	84907	Screw Extractor Set
P-335	91329	Puller
K-53	91253	Feeler Gauge
K-67	91270	Feeler Gauge
FIP-1	91552	File
N-6R	82006	Hex Key Set
CSN-10	84910	Nut Driver Set
MB 82-1	81082	Chest

NOTE: FOR WARRANTY SEE PAGE 95.



# 1/4" DR. HANDLES AND ATTACHMENTS

Bonney's 1/4" square drive sockets, handles and attachments represent the ultimate in design and materials. Handles and attachments are well-balanced and properly proportioned. Sockets are made from the finest alloy steels, expertly machined and heat-treated to meet the highest standards for performance and dependable service. Square drive is recessed for positive lock on ball check of the drive tool. Nickel chrome plated.

## REVERSIBLE RATCHET 1/4" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
V-702K	41230	Rev. Ratchet, Lgth. 5 1/2", Wt.: .312 lb.	133.4

## HINGE HANDLE 1/4" SQUARE DRIVE



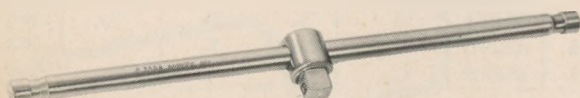
Catalog No.	E.D.P. No.		Lgth. MM
V-720	41241	Hinge Handle, Lgth. 5 1/2", Wt.: .203 lb.	139.7

## SPINNER HANDLE 1/4" SQUARE DRIVE



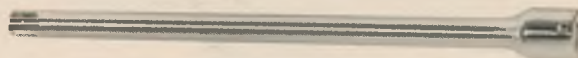
Catalog No.	E.D.P. No.		Lgth. MM
V-780	41248	Spinner Hdle, Lgth. 6 1/2", Wt.: .118 lb.	155.6

## SLIDING "T" HANDLE 1/4" SQUARE DRIVE



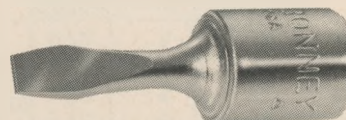
Catalog No.	E.D.P. No.		Lgth. MM
V-730	41244	Sliding "T" Hdle, Lgth 4", Wt.: .084 lb.	101.6

## EXTENSION 1/4" SQUARE DRIVE



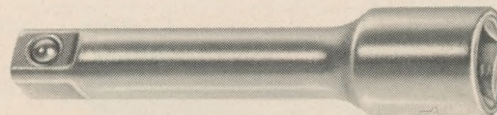
Catalog No.	E.D.P. No.		Lgth. MM
V-606	41206	Extension, Lgth. 6", Wt.: .122 lb.	152.4

## SLOT SCREWDRIVER BIT 1/4" SQUARE DRIVE



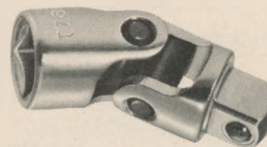
Catalog No.	E.D.P. No.		Lgth. MM
V-787	41284	Slot Screwdriver Bit, Lgth. 3 1/4", 1/4" Bit, Wt.: .033 lb.	82.6

## EXTENSION 1/4" SQUARE DRIVE



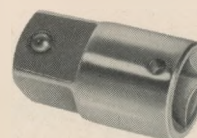
Catalog No.	E.D.P. No.		Lgth. MM
V-602	41202	Extension, Lgth. 2", Wt.: .050 lb.	50.8

## UNIVERSAL JOINT 1/4" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
V-760	41290	Universal Joint, Lgth. 1 1/4", Wt.: .031 lb.	31.8

## ADAPTER 1/4" SQUARE DRIVE



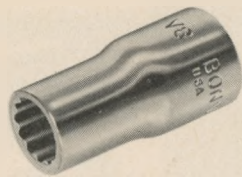
Catalog No.	E.D.P. No.		Lgth. MM
4217	41263	Adapter, 1/4" F, 3/8" M. Wt.: .034 lb.	23.8

7



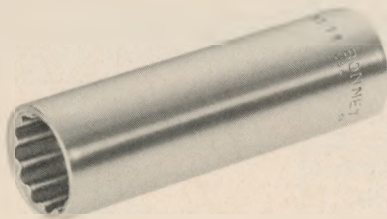
# 1/4" SQ. DR. SOCKETS AND ATTACHMENTS

## 12 LOBE LOC-RITE REGULAR LENGTH SOCKETS 1/4" SQUARE DRIVE



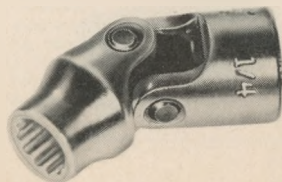
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
V-6	32006-01	3/16	7/8	22.0	19/64	.022
V-7	32007-01	7/32	7/8	22.0	11/32	.025
V-8	32008-01	1/4	7/8	22.0	3/8	.025
V-9	32009-01	9/32	7/8	22.0	13/32	.025
V-10	32010-01	5/16	7/8	22.0	29/64	.025
V-11	32011-01	11/32	7/8	22.0	1/2	.028
V-12	32012-01	3/8	7/8	22.0	17/32	.028
V-14	32014-01	7/16	7/8	22.0	5/8	.047
V-16	32016-01	1/2	7/8	22.0	3/4	.050

## 12 LOBE LOC-RITE DEEP SOCKETS 1/4" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
VL-6	32006-02	3/16	2	50.8	19/64	.034
VL-7	32007-02	7/32	2	50.8	11/32	.038
VL-8	32008-02	1/4	2	50.8	3/8	.041
VL-9	32009-02	9/32	2	50.8	21/64	.044
VL-10	32010-02	5/16	2	50.8	29/64	.050
VL-11	32011-02	11/32	2	50.8	1/2	.059
VL-12	32012-02	3/8	2	50.8	17/32	.066
VL-14	32014-02	7/16	2	50.8	5/8	.094
VL-16	32016-02	1/2	2	50.8	47/64	.109

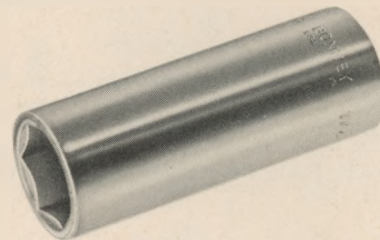
## LOC RITE 12 LOBE FLEXIBLE SOCKETS 1/4" SQUARE DRIVE



## 1/4" SQ. DR. FLEX-SOCKETS (CONT.)

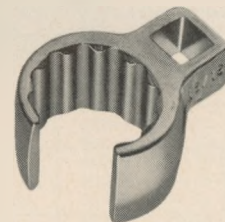
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
VU-8	32008-09	1/4	1 7/32	30.9	1/2	.063
VU-10	32010-09	5/16	1 7/32	30.9	1/2	.063
VU-12	32012-09	3/8	1 7/32	30.9	17/32	.063
VU-14	32014-09	7/16	1 7/32	30.9	39/64	.063
VU-16	32016-09	1/2	1 7/32	30.9	47/64	.064

## 6 POINT DEEP SOCKETS 1/4" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
VLH-10	31210-07	5/16	2	50.8	7/16	.062
VLH-12	31212-07	3/8	2	50.8	17/32	.062
VLH-14	31214-07	7/16	2	50.8	5/8	.093
VLH-16	31216-07	1/2	2	50.8	11/16	.124
VLH-18	31218-07	9/16	2	50.8	3/4	.124

## 10 LOBE LOC-RITE BOX TYPE CROWFOOT 1/4" SQUARE DRIVE



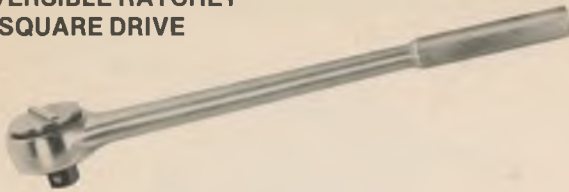
Catalog No.	E.D.P. No.	Opening	Dia. Head	Head Thkns.	Slotted Opening	Wt. Lbs.
VF-12	45212	3/8	19/32	1/2	7/32	.025
VF-14	45214	7/16	45/64	9/16	17/64	.028
VF-16	45216	1/2	51/64	9/16	21/64	.047
VF-18	45218	9/16	55/64	9/16	11/32	.044

Bonney Crowfoot Wrenches are indispensable for tightening fittings to specified torque requirements. This slotted box type wrench is braced with the non-distorting Loc-Rite configuration and has many applications on aircraft fittings as well as other tubing installations. Excellent as attachment for torque wrenches. Forged from special alloy steel, heat-treated and tempered for strength and long life. Nickel chrome plated.



# 3/8" SQ. DR. HANDLES AND ATTACHMENTS

## REVERSIBLE RATCHET 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-702K	41330	Rev. Ratchet, Lgth. 7", Wt.: .688 lb.	177.8

## FLEX RATCHET 3/8" SQUARE DRIVE



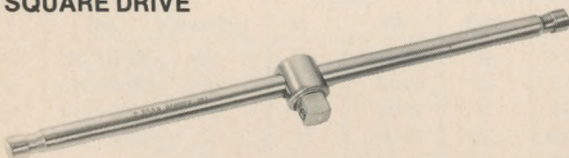
Catalog No.	E.D.P. No.		Lgth. MM
T-703K	41332	Flex Ratchet, Lgth. 10 1/4", Wt.: 1.125	

## HINGE HANDLE 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-720	41341	Hinge Handle, Lgth. 7 3/8", Wt.: .294 lb.	193.7

## SLIDING "T" HANDLE 3/8" SQUARE DRIVE



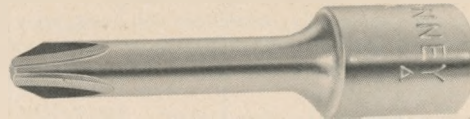
Catalog No.	E.D.P. No.		Lgth. MM
T-730	41344	Sliding "T" Hdle, Lgth. 8", Wt.: .325 lb.	203.2

## SPEEDER HANDLE 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-742	41345	Speeder Handle, Lgth. 17", Wt.: 1.063 lb.	431.8

## R & P SCREWDRIVER 3/8" SQUARE DRIVE



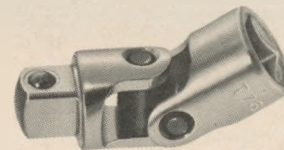
Catalog No.	E.D.P. No.		Lgth. MM
T-648	41375	Screwdriver, Reed & Prince, Lgth. 2 3/8", Wt.: .088 lb.	66.7

## SCREWDRIVER 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-637	41377	Screwdriver, Bit 3/16", Lgth. 2 1/8", Wt.: .075 lb.	52.4
T-638	41378	Screwdriver, Bit 5/16", Lgth. 2 1/8", Wt.: .078 lb.	52.4

## UNIVERSAL JOINT 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-760	41390	Universal Joint, Lgth. 1 7/8", Wt.: .106 lb.	47.6

## SCREWDRIVER 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-34	41396	Screwdriver, Bit 3/8", Lgth. 3 1/4", Wt.: .119 lb.	82.6

## ADAPTER 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
4216	41362	Adapter, F. 3/8", M. 1/4", Wt.: .031 lb.	28.1

## ADAPTER 3/8" SQUARE DRIVE



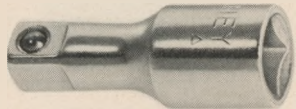
Catalog No.	E.D.P. No.		Lgth. MM
4215	41364	Adapter, F. 3/8", M. 3/8", Wt.: .084 lb.	33.3



## 3/8" SQ. DR. ATTACHMENTS

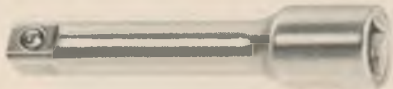
Bonney 3/8" Square Drive "T" Series Sockets, Handles and Attachments provide maximum strength and utility in combination with compact size and lightweight. Made from high quality alloy steel, accurately machined and heat-treated to meet the highest standards of performance and durability. Square drive is recessed for positive lock on ball check of drive tools.

### EXTENSION, 3/8" SQUARE DRIVE



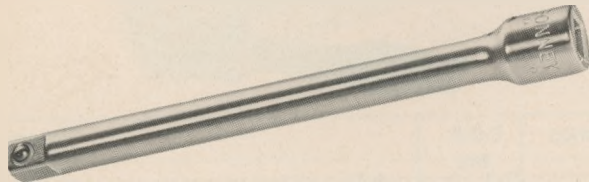
Catalog No.	E.D.P. No.		Lgth. MM
T-601	41302	Extension, Lgth. 1 3/4", Wt.: .100 lb.	44.5

### EXTENSION, 3/8" SQUARE DRIVE



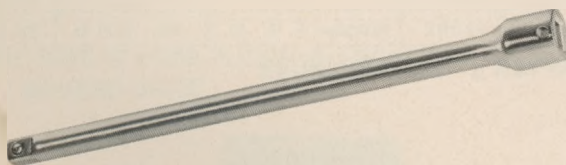
Catalog No.	E.D.P. No.		Lgth. MM
T-603	41303	Extension, Lgth. 3", Wt.: .147 lb.	76.2

### EXTENSION, 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-606	41306	Extension, Lgth. 6", Wt.: .262 lb.	152.4

### EXTENSION, 3/8" SQUARE DRIVE



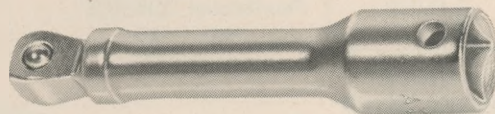
Catalog No.	E.D.P. No.		Lgth. MM
T-612	41312	Extension, Lgth. 12", Wt.: .378 lb.	304.8

### EXTENSION, 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
T-617	41317	Extension, Lgth. 17 1/2", Wt.: .750 lbs.	444.9
T-624	41324	Extension, Lgth. 24", Wt.: .625 lb.	609.6

### WOBBLE DRIVE EXTENSION, 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
AT-4	41306-09	Wobble Drive Extension, Lgth. 6", Wt.: .212 lb.	152.4
AT-5	41312-09	Wobble Drive Extension, Lgth. 12", Wt.: .400 lb.	304.8
AT-31	41303-09	Wobble Drive Extension, Lgth. 3", Wt.: .128 lb.	76.2

### PHILLIPS SCREWDRIVER BITS 3/8" DRIVE

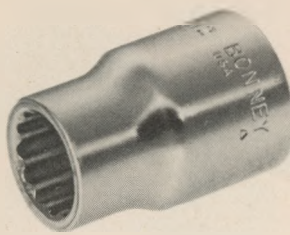


Catalog No.	E.D.P. No.		Lgth. MM
T-645	41325	Screwdriver, Phillips No. 2, Wt.: .094 lb.	66.6
T-646	41326	Screwdriver, Phillips No. 3, Wt.: .100 lb.	66.6
T-647	41327	Screwdriver, Phillips No. 4, Wt.: .100 lb.	66.6



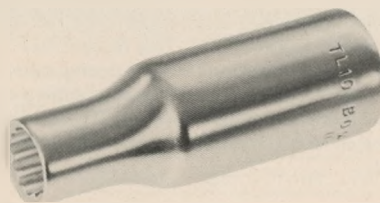
# 3/8" SQ. DR. SOCKETS

## LOC-RITE 12 LOBE—REGULAR LENGTH SOCKETS 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
T-10	33210-01	5/16	1	25.4	15/32	.063
T-12	33212-01	3/8	1	25.4	35/64	.048
T-14	33214-01	7/16	1	25.4	5/8	.050
T-16	33216-01	1/2	1	25.4	11/16	.054
T-18	33218-01	9/16	1	25.4	25/32	.069
T-20	33220-01	5/8	1	25.4	27/32	.084
T-22	33222-01	11/16	1 1/32	25.4	15/16	.103
T-24	33224-01	3/4	1 1/8	30.9	1	.109
T-26	33226-01	13/16	1 1/8	30.9	1 1/16	.125
T-28	33228-01	7/8	1 3/8	69.9	1 3/16	.188

## LOC-RITE 12 LOBE—DEEP SOCKETS 3/8" SQUARE DRIVE



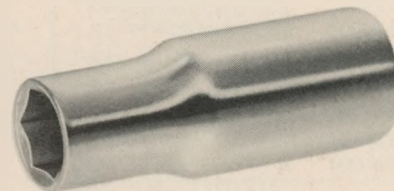
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
TL-10	33210-02	5/16	2	50.8	15/32	.074
TL-12	33212-02	3/8	2	50.8	9/16	.076
TL-14	33214-02	7/16	2	50.8	5/8	.078
TL-16	33216-02	1/2	2	50.8	11/16	.097
TL-18	33218-02	9/16	2	50.8	25/32	.134
TL-20	33220-02	5/8	2 1/4	57.2	27/32	.192
TL-22	33222-02	11/16	2 1/2	63.5	59/64	.222
TL-24	33224-02	3/4	2 1/2	63.5	1	.263
TL-26	33226-02	13/16	2 1/2	63.5	1 1/16	.313
TL-28	33228-02	7/8	2 3/4	69.9	1 3/32	.375

## 6 POINT—REGULAR LENGTH SOCKETS 3/8" SQUARE DRIVE



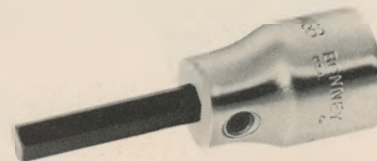
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
TH-8	31308-06	1/4	1	25.4	25/64	.044
TH-10	31310-06	5/16	1	25.4	15/32	.048
TH-12	31312-06	3/8	1	25.4	35/64	.048
TH-14	31314-06	7/16	1	25.4	5/8	.050
TH-16	31316-06	1/2	1	25.4	47/64	.054
TH-18	31318-06	9/16	1	25.4	25/32	.069
TH-20	31320-06	5/8	1	25.4	27/32	.084
TH-22	31322-06	11/16	1 1/32	25.4	15/16	.103
TH-24	31324-06	3/4	1 1/8	30.9	1	.109

## 6 POINT-DEEP SOCKETS 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
TLH-12	31312-07	3/8	1 3/4	44.5	35/64	.062
TLH-14	31314-07	7/16	2	50.8	5/8	.093
TLH-16	31316-07	1/2	2	50.8	11/16	.124
TLH-18	31318-07	9/16	2	50.8	47/64	.134
TLH-20	31320-07	5/8	2 1/4	57.2	59/64	.192
TLH-22	31322-07	11/16	2 1/2	63.5	59/64	.222
TLH-24	31324-07	3/4	2 1/2	63.5	1	.263
TLH-26	31326-07	13/16	2 3/4	69.9	1 3/64	.269

## HEX HEAD SCREWDRIVER SOCKETS 3/8" SQUARE DRIVE



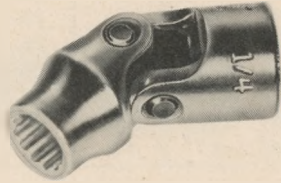
(SEE COMPLETE SET PG. 58)

Catalog No.	E.D.P. No.	Bit Size	O.A. Length		Bit Length	O.D. Socket End	Wt. Lbs.
			In.	MM			
TW-4 B	41379	1/8	2	50.8	1	1/2	.038
TW-5 B	41380	5/32	2	50.8	1	1/2	.038
TW-6 B	41381	3/16	2	50.8	1	1/2	.032
TW-7 B	41382	7/32	2	50.8	1	1/2	.066
TW-8 B	41383	1/4	2	50.8	1 1/32	11/16	.088
TW-10 B	41384	5/16	2	50.8	1	11/16	.097
TW-12 B	41385	3/8	2	50.8	1	11/16	.106



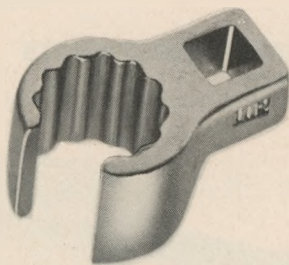
## 3/8" SQ. DR. SOCKETS & ATTACHMENTS

### LOC-RITE 12 LOBE—FLEXIBLE SOCKETS 3/8" SQUARE DRIVE



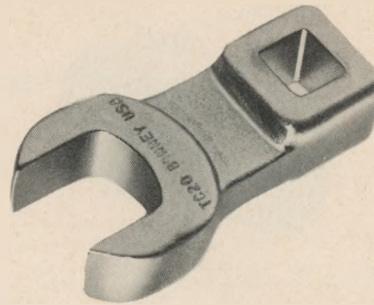
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
TU-12	33212-09	3/8	1 23/32	43.7	17/32	.094
TU-14	33214-09	7/16	1 23/32	43.7	39/64	.094
TU-16	33216-09	1/2	1 23/32	43.7	11/16	.100
TU-18	33218-09	9/16	1 3/4	44.5	25/32	.100
TU-20	33220-09	5/8	1 3/4	44.5	27/32	.103
TU-22	33222-09	11/16	1 7/8	47.6	59/64	.105
TU-24	33224-09	3/4	1 15/16	49.2	1	.105

### LOC-RITE 10 LOBE BOX TYPE CROWFOOT 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	Dia. Head	Thkns. Head	Slotted Openings	Wt. Lbs.
TF-20	45320	5/8	3 1/32	23/32	13/32	.081
TF-22	45322	11/16	1 1/16	23/32	7/16	.078
TF-24	45324	3/4	1 9/64	3/4	1/2	.073
TF-26	45326	13/16	1 15/64	3/4	17/32	.108
TF-28	45328	7/8	1 5/16	25/32	37/64	.125
TF-30	45330	15/16	1 13/32	25/32	5/8	.131
TF-32	45332	1	1 15/32	13/16	2 1/32	.133
TF-34	45334	1 1/16	1 35/64	13/16	45/64	.141

### OPEN END TYPE—CROWFOOT 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	Dia. Head	Thkns. Head	Wt. Lbs.
TC-14	47314	7/16	7/8	3/8	.141
TC-16	47316	1/2	7/8	3/8	.134
TC-18	47318	9/16	1 1/8	3/8	.144
TC-20	47320	5/8	1 1/8	3/8	.138
TC-22	47322	11/16	1 7/16	1/2	.215
TC-24	47324	3/4	1 7/16	1/2	.200
TC-26	47326	13/16	1 21/32	1/2	.247
TC-28	47328	7/8	1 21/32	1/2	.241

Bonney Crowfoot Wrenches are indispensable for tightening fittings to specified torque requirements. This slotted box type wrench is broached with the non-distorting Loc-Rite configuration and has many applications on aircraft fittings as well as other tubing installations. Excellent as attachment for torque wrenches. Forged from special alloy steel, heat-treated and tempered for strength and long life. Nickel chrome plated.

#### TOOL TIP:

Do not use a "cheater" or pipe for extra leverage.

#### TOOL TIP:

Universal Sockets are real time savers but do not hold a spinning impact universal in your hand.

#### TOOL TIP:

An adjustable wrench must be properly tightened and fully seated. Also avoid using too small a wrench.

#### TOOL TIP:

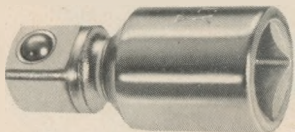
Do not use punches and chisels with mushroomed heads. And to prevent scraped knuckles use a punch and chisel holder.



# 1/2" SQ. DR. HANDLES AND ATTACHMENTS

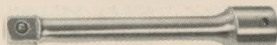
Bonney 1/2" square drive sockets, handles, and attachments are lighter, stronger and more efficient to use. A complete range of size openings, with positive lock "ball check" feature is available with matched handles and attachments for every purpose. Made from carefully selected, fine alloy steel precision machined, scientifically hardened and tempered for long, dependable service.

## EXTENSION 1/2" SQUARE DRIVE



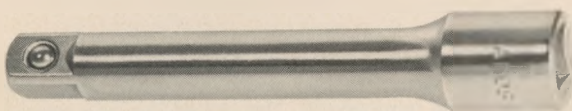
Catalog No.	E.D.P. No.		Lgth. MM
A-602	41402	Extension, Lgth. 2", Wt.: .181 lb.	50.8

## EXTENSION 1/2" SQUARE DRIVE



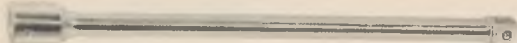
Catalog No.	E.D.P. No.		Lgth. MM
A-605	41405	Extension, Lgth. 5", Wt.: .250 lb.	127.0

## EXTENSION 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
A-610	41410	Extension, Lgth. 10", Wt.: .731 lb.	254.0

## EXTENSION 1/2" SQUARE DRIVE



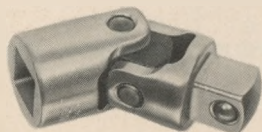
Catalog No.	E.D.P. No.		Lgth. MM
A-620	41420	Extension, Lgth. 20", Wt.: 1.73 lb.	508.0

## SLIDING "T" HANDLE 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
A-730	41444	Sliding "T" Hdle, Lgth. 9 3/4", Wt.: .82 lb.	234.9

## UNIVERSAL JOINT 1/2" SQUARE DRIVE



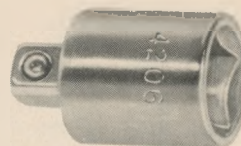
Catalog No.	E.D.P. No.		Lgth. MM
A-760	41490	Universal Joint, Lgth. 1 7/8", Wt.: .250 lb.	36.1

## SPEEDER HANDLE 1/2" SQUARE DRIVE



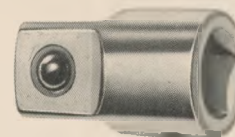
Catalog No.	E.D.P. No.		Lgth. MM
A-744	41445	Speeder Hdle., Lgth. 17 3/8", Wt.: 1.35 lb.	441.3

## ADAPTER 1/2" SQUARE DRIVE



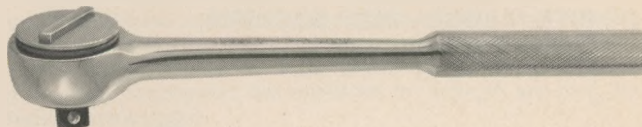
Catalog No.	E.D.P. No.		Lgth. MM
4206	41463	Adapter, 1/2" F., 3/4" M., Wt.: .137 lb.	37.3

## ADAPTER 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
4298	41466	Adapter, 1/2" F., 3/4" M., Wt.: .225 lb.	48.4

## REVERSIBLE RATCHET 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
A-702K	41430	Rev. Ratchet, Lgth. 10" Wt.: 1.25 lb.	254.0

## HINGE HANDLE 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
A-720	41440	Hinge Handle, Lgth. 12", Wt.: 1.30 lb.	304.8

## HINGE HANDLE 1/2" SQUARE DRIVE

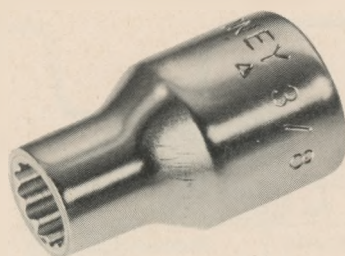


Catalog No.	E.D.P. No.		Lgth. MM
A-724	41442	Hinge Handle, Lgth. 18", Wt.: 1.75 lb.	457.2



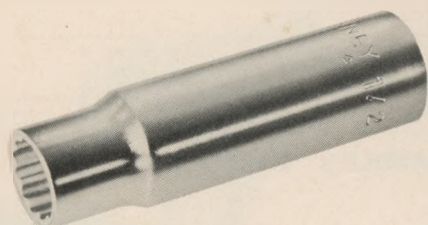
# 1/2" SQ. DR. SOCKETS AND ATTACHMENTS

## LOC-RITE 12 LOBE REGULAR LENGTH SOCKETS 1/2" SQUARE DRIVE



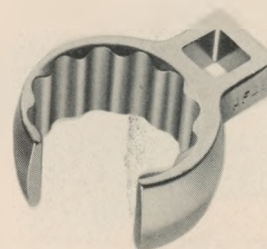
Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
A-12	34212-01	3/8	1 1/2	38.1	37/64	.106
A-14	34214-01	7/16	1 1/2	38.1	43/64	.113
A-16	34216-01	1/2	1 1/2	38.1	3/4	.122
A-18	34218-01	9/16	1 1/2	38.1	13/16	.119
A-19	34219-01	19/32	1 1/2	38.1	27/32	.125
A-20	34220-01	5/8	1 1/2	38.1	57/64	.125
A-22	34222-01	11/16	1 1/2	38.1	31/32	.163
A-24	34224-01	3/4	1 1/2	38.1	1 1/4	.181
A-25	34225-01	25/32	1 1/2	38.1	1 1/8	.188
A-26	34226-01	13/16	1 1/2	38.1	1 1/8	.225
A-28	34228-01	7/8	1 7/32	38.1	1 3/8	.244
A-30	34230-01	15/16	1 9/16	39.7	1 1/4	.275
A-32	34232-01	1	1 5/8	41.3	1 11/32	.300
A-34	34234-01	1 1/16	1 3/4	44.5	1 7/8	.388
A-36	34236-01	1 1/8	1 3/4	44.5	1 1/2	.397
A-38	34238-01	1 3/8	1 3/4	44.5	1 5/8	.438
A-40	34240-01	1 1/4	1 3/4	44.5	1 11/16	.466
A-42	34242-01	1 5/8	2 3/16	55.6	1 7/8	.937

## LOC-RITE 12 LOBE—DEEP SOCKETS 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
AL-16	34216-02	1/2	3	82.6	47/64	.294
AL-18	34218-02	9/16	3	82.6	51/64	.269
AL-20	34220-02	5/8	3	82.6	7/8	.233
AL-22	34222-02	11/16	3	82.6	31/32	.269
AL-24	34224-02	3/4	3	82.6	1 1/8	.333
AL-26	34226-02	13/16	3	82.6	1 1/8	.350
AL-28	34228-02	7/8	3	82.6	1 3/8	.450
AL-30	34230-02	15/16	3	82.6	1 1/4	.500
AL-32	34232-02	1	3	82.6	1 11/32	.575
AL-34	34234-02	1 1/16	3	82.6	1 7/8	.713
AL-36	34236-02	1 1/8	3	82.6	1 1/2	.750

## LOC-RITE 10 LOBE—BOX TYPE CROWFOOT 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	* TC	Dia. Head	Thkns. Head	Wt. Lbs.
AF-36	45436	1 1/8	1 3/32	1 1/4	29/32	.250
AF-40	45440	1 1/4	1 11/64	1 53/64	29/32	.250
AF-44	45444	1 3/8	1 1/4	1 63/64	31/32	.313
AF-48	45448	1 1/2	1 5/16	2 3/32	31/32	.313
AF-52	45452	1 5/8	1 25/64	2 15/64	31/32	.375
AF-56	45456	1 3/4	1 15/32	2 13/32	1 1/32	.438
AF-60	45460	1 7/8	1 9/16	2 39/64	1 3/32	.563
AF-64	45464	2	1 41/64	2 3/4	1 3/32	.563

\* Torque Lever Arm Dimension

Bonney Crowfoot Wrenches are indispensable for tightening fittings to specified torque requirements. This slotted box type wrench is broached with the non-distorting Loc-Rite configuration and has many applications on aircraft fittings as well as other tubing installations. Excellent as attachments for torque wrenches. Forged from special alloy steel, heat-treated and tempered for strength and long life. Nickel chrome plated.

### TOOL TIP:

Do not abuse adapters. The top ratchet could damage the fastener while the bottom ratchet loses a lot of turning power.

### TOOL TIP:

Use Phillips head screwdrivers for Phillips head screws. In this case both screwdriver and screw will suffer.

### TOOL TIP:

Do not use pliers as wrenches, rounded corners will result.

### TOOL TIP:

It is safer and easier to use one correct length extension instead of many.

### TOOL TIP:

Only impact sockets and extensions should be used on impact wrenches.

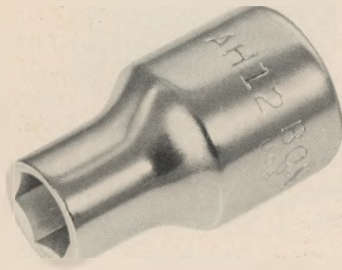
### TOOL TIP:

All wrenches should be flush and fully seated when used.



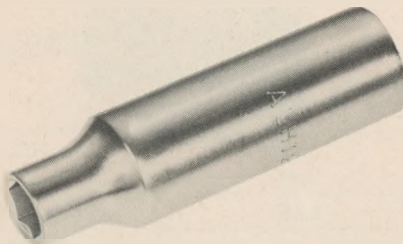
# 1/2" SQ. DR. SOCKETS AND ATTACHMENTS

## 6 POINT—REGULAR LENGTH SOCKETS 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
AH-12	31412-06	3/8	1 1/2	38.1	9/16	.106
AH-14	31414-06	7/16	1 1/2	38.1	23/32	.113
AH-16	31416-06	1/2	1 1/2	38.1	47/64	.122
AH-18	31418-06	9/16	1 1/2	38.1	13/16	.119
AH-20	31420-06	5/8	1 1/2	38.1	7/8	.125
AH-22	31422-06	11/16	1 1/2	38.1	31/32	.163
AH-24	31424-06	3/4	1 1/2	38.1	13/64	.181

## 6 POINT—DEEP SOCKETS 1/2" SQUARE DRIVE

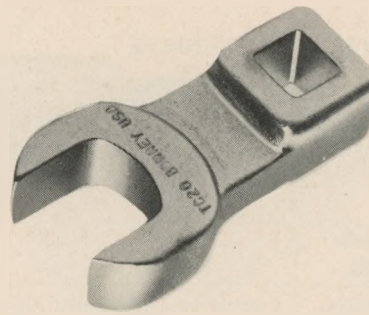


Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
ALH-12	31412-07	3/8	3	76.2	37/64	.343
ALH-14	31414-07	7/16	3	76.2	23/32	.343
ALH-16	31416-07	1/2	3	76.2	3/4	.343
ALH-18	31418-07	9/16	3	76.2	13/16	.312
ALH-20	31420-07	5/8	3	76.2	7/8	.312
ALH-22	31422-07	11/16	3	76.2	15/16	.312
ALH-24	31424-07	3/4	3	76.2	1 1/32	.375
ALH-26	31426-07	13/16	3	76.2	1 1/8	.375
ALH-28	31428-07	7/8	3	76.2	1 3/8	.500
ALH-30	31430-07	15/16	3	76.2	1 1/4	.531
ALH-32	31432-07	1	3	76.2	1 11/32	.625
ALH-34	31434-07	1 1/16	3	76.2	1 7/8	.750
ALH-36	31436-07	1 1/8	3	76.2	1 1/2	.812
ALH-40	31440-07	1 1/4	3	76.2	1 25/32	1.375

### TOOL TIP:

Do not use punches and chisels with mushroomed heads. And to prevent scraped knuckles use a punch and chisel holder.

## OPEN END TYPE—CROWFOOT 1/2" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	* TC	Dia. Head	Thkns. Head	Wt. Lbs.
AC-30	47430	15/16	1 3/4	1 15/16	1/2	.375
AC-32	47432	1	1 3/4	1 15/16	1/2	.375
AC-34	47434	1 1/16	1 3/4	2 1/8	5/8	.375
AC-36	47436	1 1/8	1 3/4	2 1/8	5/8	.500
AC-38	47438	1 3/8	1 3/4	2 1/4	5/8	.500
AC-40	47440	1 1/4	1 3/4	2 1/4	5/8	.563
AC-44	47444	1 3/8	2	2 1/2	5/8	.563
AC-48	47448	1 1/2	2	2 3/4	5/8	.750
AC-52	47452	1 5/8	2	2 15/16	5/8	.750
AC-56	47456	1 3/4	2 1/4	3 1/4	5/8	.875
AC-60	47460	1 7/8	2 1/4	3 3/4	5/8	.875
AC-64	47464	2	2 1/4	3 7/8	5/8	1.000
AC-68	47468	2 1/8	2 13/32	3 15/16	5/8	1.438
AC-72	47472	2 1/4	2 1/2	3 15/16	5/8	1.125

### \*Torque Lever Arm Dimension

Bonney Crowfoot Wrenches are indispensable for tightening fittings to specified torque requirements. This slotted box type wrench is broached with the non-distorting Loc-Rite configuration and has many applications on aircraft fittings as well as other tubing installations. Excellent as attachments for torque wrenches. Forged from special alloy steel, heat-treated and tempered for strength and long life. Nickel chrome plated.

### TOOL TIP:

Do not use a "cheater" or pipe for extra leverage.

### TOOL TIP:

Universal Sockets are real time savers but do not hold a spinning impact universal in your hand.

### TOOL TIP:

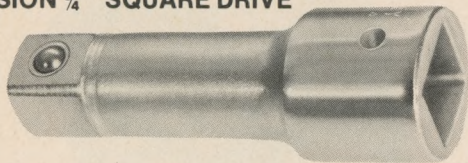
An adjustable wrench must be properly tightened and fully seated. Also avoid using too small a wrench.



# 3/4" SQ. DR. SOCKETS AND ATTACHMENTS

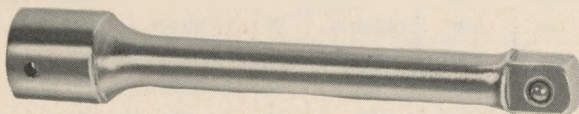
Bonney 3/4" square drive heavy-duty sockets, handles and attachments are the accepted standard of the discriminating mechanic. Beginning with finest alloy steel and finishing with durable chrome plate, Bonney 3/4" square drive tools more than meet every heavy-duty service need.

## EXTENSION 3/4" SQUARE DRIVE



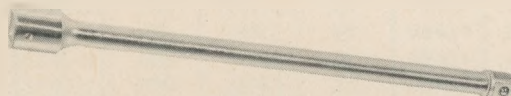
Catalog No.	E.D.P. No.		Lgth. MM
R-604	41604	Extension, Lgth. 4", Wt.: .875 lb.	101.6

## EXTENSION 3/4" SQUARE DRIVE



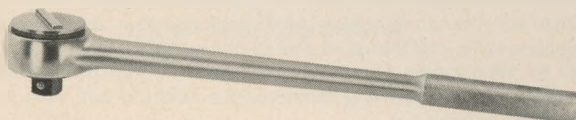
Catalog No.	E.D.P. No.		Lgth. MM
R-609	41609	Extension, Lgth. 9", Wt.: 1.538 lb.	228.6

## EXTENSION, 3/4" SQUARE DRIVE



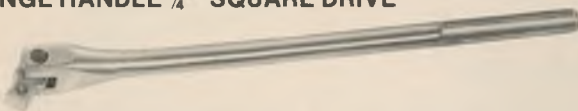
Catalog No.	E.D.P. No.		Lgth. MM
R-617	41617	Extension, Lgth. 17", Wt. 2.655 lb.	431.8

## REVERSIBLE RATCHET 3/4" SQUARE DRIVE



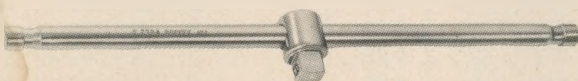
Catalog No.	E.D.P. No.		Lgth. MM
R-702 K	41630	Rev. Ratchet, Lgth. 18 1/4", Wt. 5.250 lb	463.6

## HINGE HANDLE 3/4" SQUARE DRIVE



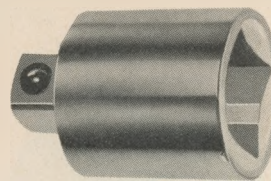
Catalog No.	E.D.P. No.		Lgth. MM
R-720 A	41641	Hinge Handle, Lgth. 20 1/2", Wt.: 4.31 lb.	520.7

## SLIDING "T" HANDLE 3/4" SQUARE DRIVE



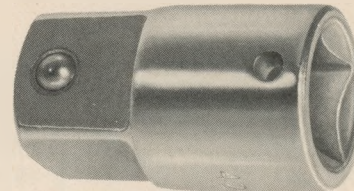
Catalog No.	E.D.P. No.		Lgth. MM
R-730 A	41644	Sliding "T" Handle, Lgth. 18", Wt.: 2.625 lb.	457.2

## ADAPTER 3/4" SQUARE DRIVE



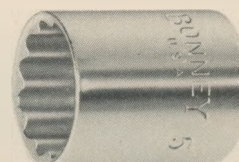
Catalog No.	E.D.P. No.		Lgth. MM
4299	41664	Adapter, F 3/4", M 1/2", Wt.: .344 lb.	49.2

## ADAPTER 3/4" SQUARE DRIVE



Catalog No.	E.D.P. No.		Lgth. MM
4211	41668	Adapter, F 3/4", M 1", Wt.: .60 lb.	58.7

## LOC-RITE 12 LOBE—REGULAR LENGTH SOCKETS 3/4" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
R-28	36228-01	7/8	2	50.8	1 1/8	.400
R-30	36230-01	1 1/16	2	50.8	1 3/8	.406
R-32	36232-01	1	2	50.8	1 1/2	.459
R-34	36234-01	1 1/8	2	50.8	1 5/8	.600
R-36	36236-01	1 1/4	2	50.8	1 7/8	.688
R-38	36238-01	1 3/8	2	50.8	1 9/8	.669
R-40	36240-01	1 1/2	2 3/16	55.6	1 11/16	.775
R-42	36242-01	1 5/8	2 1/2	55.6	1 7/8	.900
R-44	36244-01	1 3/4	2 5/8	55.6	1 9/8	.950
R-46	36246-01	1 7/8	2 3/4	60.3	2	1.000
R-48	36248-01	2	2 7/8	60.3	2 1/8	1.075
R-50	36250-01	2 1/8	3	60.3	2 1/4	1.113
R-52	36252-01	2 1/4	3 1/8	60.3	2 3/4	1.369

## 12 POINT—REGULAR LENGTH SOCKETS DOUBLE HEXAGON

R-54	36254-01	1 1/8	2 7/8	61.9	2 1/4	1.000
R-56	36256-01	1 3/8	3	63.5	2 3/8	1.150
R-58	36258-01	1 1/2	3 1/8	71.4	2 7/8	1.400
R-60	36260-01	1 5/8	3 1/4	73.0	2 15/16	1.463
R-64	36264-01	2	3 1/2	76.2	2 3/4	1.531
R-66	36266-01	2 1/8	3 3/4	80.0	2 7/8	2.363
R-68	36268-01	2 3/8	3 7/8	77.8	2 27/32	2.200
R-70	36270-01	2 1/2	3 7/8	79.4	3	2.488
R-72	36272-01	2 3/4	4	80.9	3	2.200



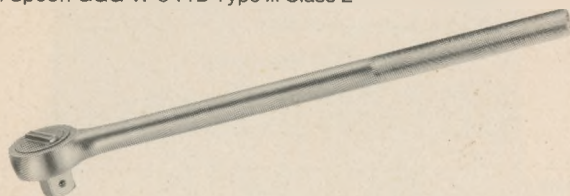
# 1" SQ. DR. SOCKETS, HANDLES AND ATTACHMENTS

Bonney 1" square drive sockets and handles are engineered and built to provide the extra durability and plus strength necessary for tough heavy duty jobs. All alloy steel construction, with precision machining and hardening process is your assurance of maximum performance under the most severe service requirements.

## REVERSIBLE RATCHET 1" SQUARE DRIVE

Handle and head forged in one piece 60 tooth, drag free action. Lgth.: 21", Wt.: 5.0 lbs.

Fed. Spec.: GGG-W-641D Type III Class 2

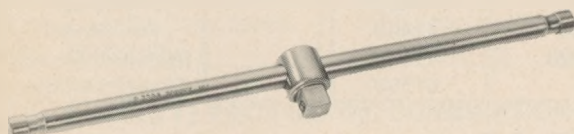


Catalog No.	E.D.P. No.	Lgth. MM
X-702 K	41830	533.4

## SLIDING "T" HANDLES 1" SQUARE DRIVE

New, one piece construction. Lgth.: 23", Wt.: 6.125 lbs.

Fed. Spec.: GGG-W-641D Type III Class 4 Style A

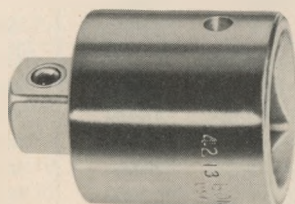


Catalog No.	E.D.P. No.	Lgth. MM
X-730	41844	584.2

## ADAPTER 1" SQUARE DRIVE

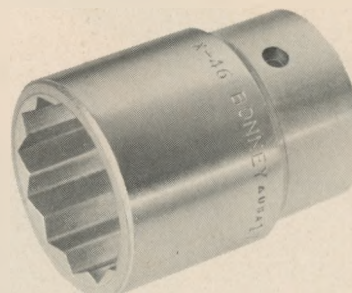
Female Drive 1". Male Drive 3/4". Wt.: 1.375 lbs.

Fed. Spec.: GGG-W-641D Type IV Class 5 Style A



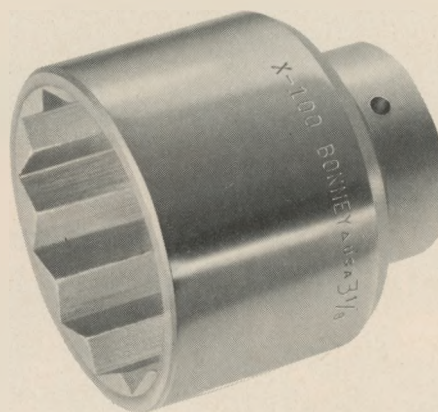
Catalog No.	E.D.P. No.	Lgth. MM
4213	41866	71.4

## 12 POINT—REGULAR LENGTH SOCKETS 1" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
X-46	31846-01	1 1/16	2 1/2	63.5	2	.88
X-48	31848-01	1 1/2	2 7/16	65.9	2 1/8	1.19
X-52	31852-01	1 5/8	2 11/16	68.3	2 1/4	1.25
X-58	31858-01	1 9/16	2 7/8	73.0	2 3/8	1.75
X-60	31860-01	1 7/8	2 15/16	75.4	2 3/4	2.19

## 12 POINT—REGULAR LENGTH SOCKETS 1" SQUARE DRIVE



Catalog No.	E.D.P. No.	Opening	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
X-64	31864-01	2	3	77.8	2 3/4	2.31
X-70	31870-01	2 3/16	3 3/8	79.4	3	2.75
X-72	31872-01	2 1/4	3 7/16	81.8	3 1/8	2.81
X-74	31874-01	2 5/16	3 1/4	83.3	3 1/2	2.88
X-76	31876-01	2 3/8	3 11/16	84.1	3 3/4	3.25
X-78	31878-01	2 7/16	3 1/2	85.7	3 7/8	3.19
X-80	31880-01	2 1/2	3 5/8	85.7	3 7/8	3.13
X-82	31882-01	2 5/8	3 3/4	89.7	3 7/8	3.25
X-84	31884-01	2 3/4	3 7/8	91.3	3 7/8	3.50
X-88	31888-01	2 3/4	3 11/16	93.7	3 7/8	4.63
X-94	31894-01	2 15/16	3 7/8	98.4	3 7/8	5.38
X-96	31896-01	3	3 7/8	100.0	4 1/8	5.50
X-100	31899-01	3 3/8	4 1/8	103.2	4 1/8	6.50



# 3/8" & 1/2" SQ. DR. METRIC SOCKET SETS

## Set No. B-80310 16 PIECE 3/8" METRIC SOCKET SET

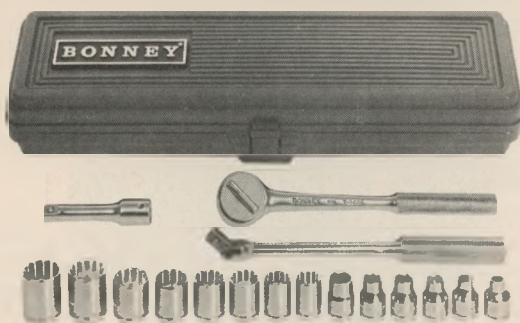
Weight - 1.813 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
MT-6	32306-08	6MM	Metric Socket
MT-7	32307-08	7MM	Metric Socket
MT-8	32308-08	8MM	Metric Socket
MT-9	32309-08	9MM	Metric Socket
MT-10	32310-08	10MM	Metric Socket
MT-11	32311-08	11MM	Metric Socket
MT-12	32312-08	12MM	Metric Socket
MT-13	32313-08	13MM	Metric Socket
MT-14	32314-08	14MM	Metric Socket
MT-15	32315-08	15MM	Metric Socket
MT-16	32316-08	16MM	Metric Socket
MT-17	32317-08	17MM	Metric Socket
MT-18	32318-08	18MM	Metric Socket
MT-19	32319-08	19MM	Metric Socket
MT-20	32320-08	20MM	Metric Socket
MT-22	32322-08	22MM	Metric Socket
	81578		Tray

## Set No. B-83958 17 PIECE 3/8" METRIC SOCKET SET

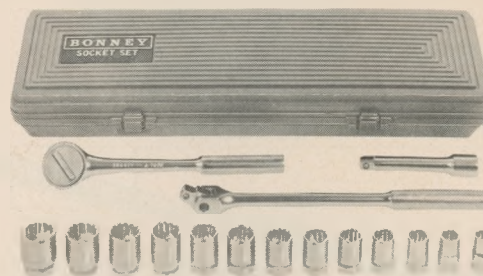
Weight - 3.563 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
MT-6	32306-08	6MM	Metric Socket
MT-7	32307-08	7MM	Metric Socket
MT-8	32308-08	8MM	Metric Socket
MT-9	32309-08	9MM	Metric Socket
MT-10	32310-08	10MM	Metric Socket
MT-11	32311-08	11MM	Metric Socket
MT-12	32312-08	12MM	Metric Socket
MT-13	32313-08	13MM	Metric Socket
MT-14	32314-08	14MM	Metric Socket
MT-15	32315-08	15MM	Metric Socket
MT-16	32316-08	16MM	Metric Socket
MT-17	32317-08	17MM	Metric Socket
MT-18	32318-08	18MM	Metric Socket
MT-19	32319-08	19MM	Metric Socket
T-702K	41330		Reversible Ratchet
T-603	41303		3" Extension
T-720	41341		Flex Handle
	81587		Blow Molded Box

## Set No. B-80411 16 PIECE 1/2" METRIC SOCKET SET

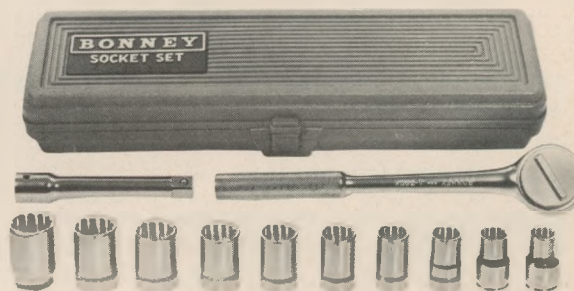
Weight - 8.189 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
MA-12	32412-08	12MM	Metric Socket
MA-13	32413-08	13MM	Metric Socket
MA-14	32414-08	14MM	Metric Socket
MA-15	32415-08	15MM	Metric Socket
MA-16	32416-08	16MM	Metric Socket
MA-17	32417-08	17MM	Metric Socket
MA-18	32418-08	18MM	Metric Socket
MA-19	32419-08	19MM	Metric Socket
MA-20	32420-08	20MM	Metric Socket
MA-21	32421-08	21MM	Metric Socket
MA-22	32422-08	22MM	Metric Socket
MA-23	32423-08	23MM	Metric Socket
MA-24	32424-08	24MM	Metric Socket
A-605	41405		5" Extension
A-720	41440		Flex Handle
A-702K	41430		Reversible Ratchet
	81590		Blow Molded Box

## Set No. B-80410 12 PIECE 1/2" METRIC SOCKET SET

Weight 6 Lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
MA-12	32412-08	12MM	Metric Socket
MA-13	32413-08	13MM	Metric Socket
MA-14	32414-08	14MM	Metric Socket
MA-15	32415-08	15MM	Metric Socket
MA-16	32416-08	16MM	Metric Socket
MA-17	32417-08	17MM	Metric Socket
MA-18	32418-08	18MM	Metric Socket
MA-19	32419-08	19MM	Metric Socket
MA-20	32420-08	20MM	Metric Socket
MA-21	32421-08	21MM	Metric Socket
A-605	41405		5" Extension
A-702K	41430		Reversible Ratchet
	81588		Blow Molded Box



# METRIC WRENCH SETS

## Set No. OEM-11KB 11 PIECE METRIC DOUBLE OPEN END WRENCH SET

Weight- 4.375 lbs.

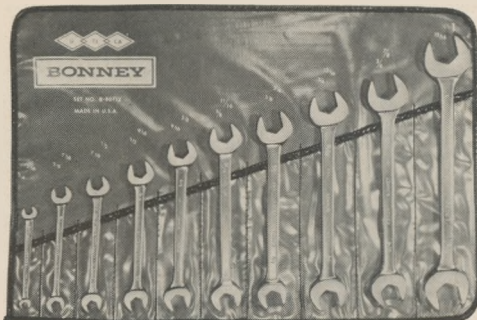
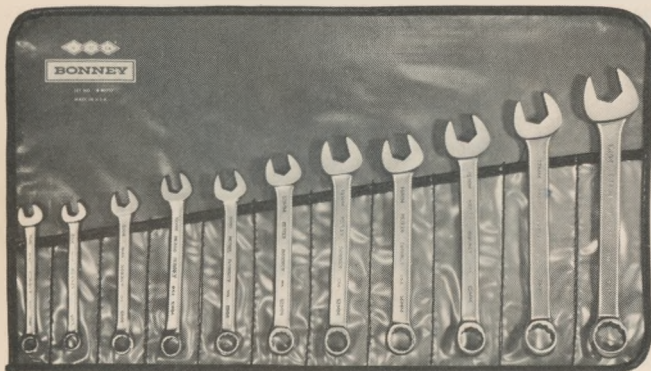


ILLUSTRATION MISSING (1) WRENCH

Catalog No.	E.D.P. No.	Size MM	Description
ME67	22807	6 & 7mm	15° Double Open End
ME89	22809	8 & 9mm	15° Double Open End
ME1011	22811	10 & 11mm	15° Double Open End
ME1213	22813	12 & 13mm	15° Double Open End
ME1415	22815	14 & 15mm	15° Double Open End
ME1618	22818	16 & 18mm	15° Double Open end
ME1719	22819	17 & 19mm	15° Double Open End
ME2022	22822	20 & 22mm	15° Double Open End
ME2123	22823	21 & 23mm	15° Double Open End
ME2426	22826	24 & 26mm	15° Double Open End
ME2528	22828	25 & 28mm	15° Double Open End
KB-26	80730-09		Kit Bag Only

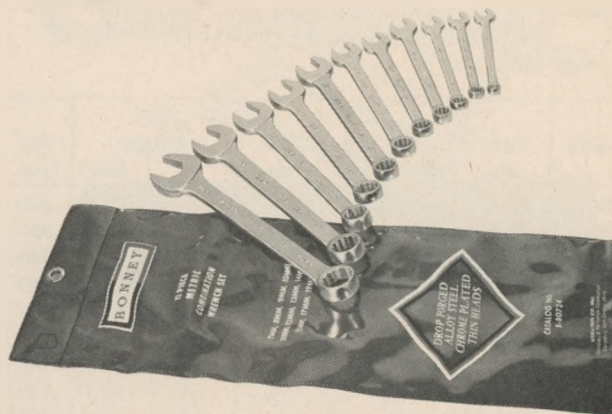
## Set No. B-80713 11 PIECE METRIC COMBINATION WRENCHES

Weight - 2.125 lbs.



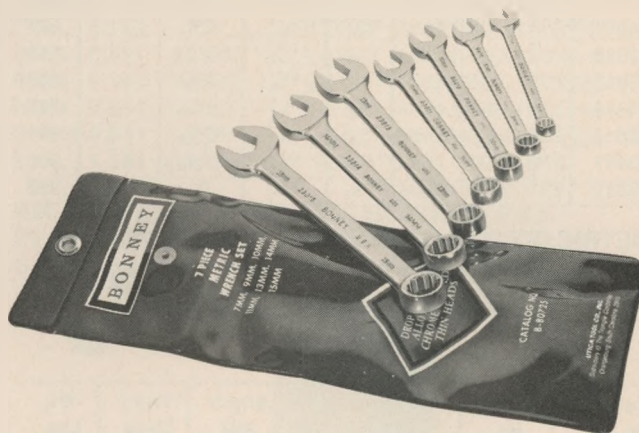
Catalog No.	E.D.P. No.	Size Opening	Description
MEB7	25807	7mm	12 Pt. Box End—Long Style
MEB8	25808	8mm	12 Pt. Box End—Long Style
MEB9	25809	9mm	12 Pt. Box End—Long Style
MEB10	25810	10mm	12 Pt. Box End—Long Style
MEB11	25811	11mm	12 Pt. Box End—Long Style
MEB12	25812	12mm	12 Pt. Box End—Long Style
MEB13	25813	13mm	12 Pt. Box End—Long Style
MEB14	25814	14mm	12 Pt. Box End—Long Style
MEB15	25815	15mm	12 Pt. Box End—Long Style
MEB17	25817	17mm	12 Pt. Box End—Long Style
MEB19	25819	19mm	12 Pt. Box End—Long Style
KB-12	80713-09		Roll Only

## Set No. B-80724 11 PIECE SATIN FINISH METRIC COMBINATION WRENCH SET IN POUCH



Catalog No.	E.D.P. No.	Size Opening	Description
23807	23807-00	7MM	12 Pt. Box End—Long Style
23808	23808-00	8MM	12 Pt. Box End—Long Style
23809	23809-00	9MM	12 Pt. Box End—Long Style
23810	23810-00	10MM	12 Pt. Box End—Long Style
23811	23811-00	11MM	12 Pt. Box End—Long Style
23812	23812-00	12MM	12 Pt. Box End—Long Style
23813	23813-00	13MM	12 Pt. Box End—Long Style
23814	23814-00	14MM	12 Pt. Box End—Long Style
23815	23815-00	15MM	12 Pt. Box End—Long Style
23817	23817-00	17MM	12 Pt. Box End—Long Style
23819	23819-00	19MM	12 Pt. Box End—Long Style
KB-16	80724-09		Pouch Only

## Set No B-80725 7 PIECE SATIN FINISH METRIC COMBINATION WRENCH SET IN POUCH

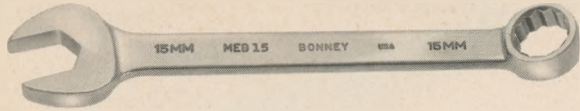


Catalog No.	E.D.P. No.	Size Opening	Description
23807	23807-00	7MM	12 Pt. Box End—Long Style
23809	23809-00	9MM	12 Pt. Box End—Long Style
23810	23810-00	10MM	12 Pt. Box End—Long Style
23811	23811-00	11MM	12 Pt. Box End—Long Style
23813	23813-00	13MM	12 Pt. Box End—Long Style
23814	23814-00	14MM	12 Pt. Box End—Long Style
23815	23815-00	15MM	12 Pt. Box End—Long Style
KB-17	80725-09		Pouch Only



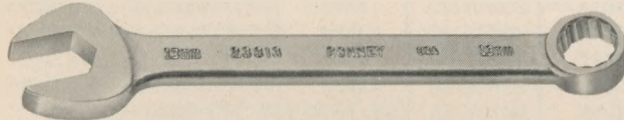
# METRIC WRENCHES AND SOCKETS

## FULL POLISH FINISH METRIC COMBINATION 12 POINT—15° OFFSET



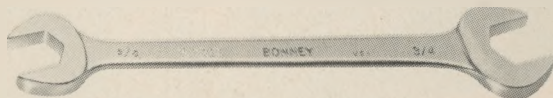
Catalog No.	E.D.P. No.	MM	O.E. Head	Box Head	O.A. Length		Wt. Lbs.
					In.	MM	
MEB6	25806	6MM	17/32	25/64	3 23/32	94.5	.025
MEB7	25807	7MM	17/32	7/16	3 23/32	107.2	.025
MEB8	25808	8MM	43/64	15/32	4 7/32	107.2	.044
MEB9	25809	9MM	49/64	17/32	4 11/16	119.1	.063
MEB10	25810	10MM	29/32	19/32	5 3/16	131.8	.081
MEB11	25811	11MM	29/32	41/64	5 3/16	131.8	.081
MEB12	25812	12MM	1 1/32	11/16	5 11/16	144.5	.119
MEB13	25813	13MM	1 1/64	49/64	6 5/32	157.9	.128
MEB14	25814	14MM	1 7/32	51/64	6 7/32	157.9	.181
MEB15	25815	15MM	1 9/32	7/8	6 27/32	173.8	.181
MEB16	25816	16MM	1 9/64	29/32	6 27/32	173.8	.264
MEB17	25817	17MM	1 27/64	61/64	7 15/32	189.7	.338
MEB18	25818	18MM	1 35/64	1 1/64	8 3/8	206.4	.338
MEB19	25819	19MM	1 35/64	1 1/8	8 3/8	206.4	.406
MEB20	25820	20MM	1 45/64	1 51/64	8 21/32	287.3	.590
MEB22	25822	22MM	1 51/64	1 1/4	8 3/4	309.6	.750

## 12 POINT 15° OFFSET—SATIN FINISH METRIC COMBINATION



Catalog No.	E.D.P. No.	MM	O.E. Head	Box Head	O.A. Length		Wt. Lbs.
					In.	MM	
23807	23807-00	7MM	17/32	7/16	3 23/32	107.2	.025
23808	23808-00	8MM	43/64	15/32	4 7/32	107.2	.044
23809	23809-00	9MM	49/64	17/32	4 11/16	119.1	.063
23810	23810-00	10MM	29/32	19/32	5 3/16	131.8	.081
23811	23811-00	11MM	29/32	41/64	5 3/16	131.8	.081
23812	23812-00	12MM	1 1/32	11/16	5 11/16	144.5	.119
23813	23813-00	13MM	1 1/64	49/64	6 5/32	157.9	.128
23814	23814-00	14MM	1 7/32	51/64	6 27/32	173.8	.181
23815	23815-00	15MM	1 9/32	7/8	6 27/32	173.8	.181
23817	23817-00	17MM	1 27/64	61/64	7 15/32	187.7	.338
23819	23819-00	19MM	1 35/64	1 1/8	8 3/8	206.4	.338

## METRIC DOUBLE OPEN END WRENCHES



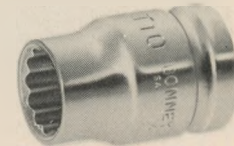
Catalog No.	E.D.P. No.	Opening MM	O.A. Length		Head Thick.	Wt. Lbs.
			IN.	MM		
ME67	22807	6 & 7mm	4 1/4	107.9	1 1/64	.050
ME89	22809	8 & 9mm	4 1/4	120.7	1 3/64	.056
ME1011	22811	10 & 11mm	5 1/4	133.4	1 3/64	.100
ME1213	22813	12 & 13mm	6 1 3/64	158.3	1 5/65	.169
ME1415	22815	14 & 15mm	7	177.8	9/32	.213
ME1618	22818	16 & 18mm	7 3/4	196.9	5/16	.275
ME1719	22819	17 & 19mm	8 3/4	222.3	2 1/64	.319
ME2022	22822	20 & 22mm	9 3/8	244.5	2 3/64	.456
ME2123	22823	21 & 23mm	10 1/4	260.4	3/8	.725
ME2426	22826	24 & 26mm	11 1/2	292.1	27/64	.863
ME2528	22828	25 & 28mm	12 5/8	320.7	15/32	1.019

## 6 POINT METRIC SOCKETS REGULAR LENGTH 3/8" SQUARE DRIVE



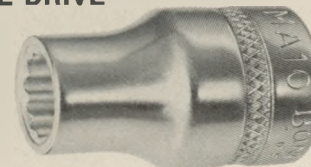
Catalog No.	E.D.P. No.	Openings MM	Diameter	O.A. Length		Wt. Lbs.
				In.	MM	
MT6	32306-08	6MM	25/64	1	25.4	.029
MT7	32307-08	7MM	13/32	1	25.4	.030
MT8	32308-08	8MM	15/32	1	25.4	.033
MT9	32309-08	9MM	1/2	1	25.4	.035

## LOC-RITE 12 LOBE METRIC SOCKETS REGULAR LENGTH 3/8" SQUARE DRIVE



Catalog No.	E.D.P. No.	Openings MM	Diameter	O.A. Length		Wt. Lbs.
				In.	MM	
MT10	32310-08	10MM	9/16	1	25.4	.038
MT11	32311-08	11MM	5/8	1	25.4	.040
MT12	32312-08	12MM	1 1/16	1	25.4	.041
MT13	32313-08	13MM	1 1/16	1	25.4	.042
MT14	32314-08	14MM	25/32	1	25.4	.044
MT15	32315-08	15MM	13/16	1	25.4	.046
MT16	32316-08	16MM	7/8	1	25.4	.050
MT17	32317-08	17MM	59/64	1	25.4	.055
MT18	32318-08	18MM	1	1 7/32	30.9	.068
MT19	32319-08	19MM	1	1 7/32	30.9	.075
MT20	32320-08	20MM	1 1/8	1 7/32	30.9	.125
MT22	32322-08	22MM	1 3/8	1 5/8	31.4	.188

## LOC-RITE 12 LOBE METRIC SOCKETS REGULAR LENGTH 1/2" SQUARE DRIVE



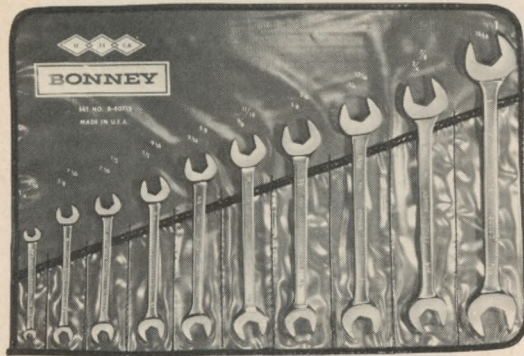
Cat. No.	E.D.P. No.	Open. MM	O.A. Length		O.D. Socket End	Wt. Lbs.
			In.	MM		
MA10-	32410-08	10MM	1 1/2	37.50	1 5/32	.038
MA11	32411-08	11MM	1 1/2	37.50	5/8	.040
MA12	32412-08	12MM	1 1/2	37.50	1 1/8	.041
MA13	32413-08	13MM	1 1/2	37.50	3/4	.042
MA14	32414-08	14MM	1 1/2	37.50	23/32	.044
MA15	32415-08	15MM	1 1/2	37.50	27/32	.046
MA16	32416-08	16MM	1 1/2	37.50	57/64	.050
MA17	32417-08	17MM	1 1/2	37.50	15/16	.055
MA18	32418-08	18MM	1 1/2	37.50	1 1/8	.068
MA19	32419-08	19MM	1 1/2	39.00	1 1/8	.075
MA20	32420-08	20MM	1 5/8	40.75	1 1/8	.125
MA21	32421-08	21MM	1 3/4	43.75	1 3/8	.157
MA22	32422-08	22MM	1 3/4	43.75	1 1/4	.188
MA23	32423-08	23MM	1 3/4	43.75	1 5/8	.218
MA24	32424-08	24MM	1 3/4	43.75	1 11/32	.278
MA25	32425-08	25MM	1 7/8	43.75	1 3/4	.278
MA26	32426-08	26MM	1 3/4	43.75	1 7/8	.308



# OPEN END AND FLARE NUT WRENCH SETS

## Set No. B-80712 10 PIECE DOUBLE OPEN END WRENCH SET

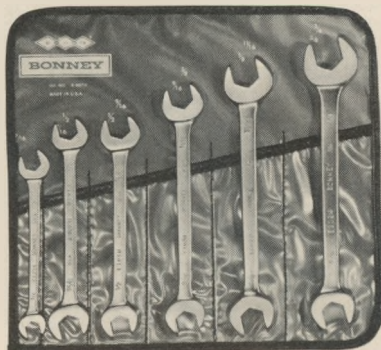
Weight 3.000 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
E-810	22103	$\frac{1}{4} \times \frac{5}{16}$	15° Double End
E-1214	22109	$\frac{3}{8} \times \frac{7}{16}$	15° Double End
E-1416	22113	$\frac{7}{16} \times \frac{1}{2}$	15° Double End
E-1618	22117	$\frac{1}{2} \times \frac{9}{16}$	15° Double End
E-1820	22119	$\frac{9}{16} \times \frac{5}{8}$	15° Double End
E-2022	22125	$\frac{5}{8} \times 1\frac{1}{16}$	15° Double End
E-2024	22127	$\frac{5}{8} \times \frac{3}{4}$	15° Double End
E-2426	22131	$\frac{3}{4} \times 1\frac{3}{16}$	15° Double End
E-2428	22133	$\frac{3}{4} \times \frac{7}{8}$	15° Double End
E-3032	22141	$1\frac{1}{16} \times 1$	15° Double End
KB-1	80712-09		Roll

## Set No. B-80711 6 PIECE DOUBLE OPEN END WRENCH SET

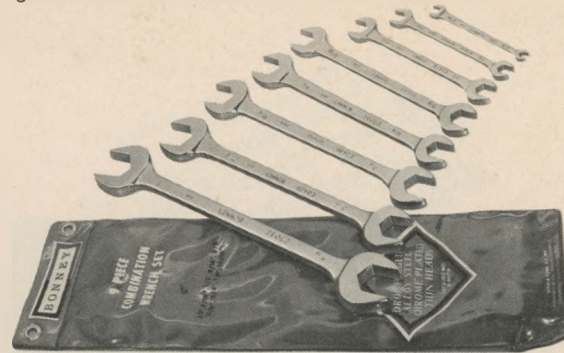
Weight 1.313 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
E-1214	22109	$\frac{3}{8} \times \frac{7}{16}$	15° Double End
E-1416	22113	$\frac{7}{16} \times \frac{1}{2}$	15° Double End
E-1618	22117	$\frac{1}{2} \times \frac{9}{16}$	15° Double End
E-1820	22119	$\frac{9}{16} \times \frac{5}{8}$	15° Double End
E-2022	22125	$\frac{5}{8} \times 1\frac{1}{16}$	15° Double End
E-2024	22127	$\frac{5}{8} \times \frac{3}{4}$	15° Double End
KB-2	80711-09		Roll

## Set. No. B-80715 8 PIECE OPEN END WRENCH SET

Weight 2.750 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
E-810	22103	$\frac{1}{4} \times \frac{5}{16}$	15° Double End
E-1214	22109	$\frac{3}{8} \times \frac{7}{16}$	15° Double End
E-1618	22117	$\frac{1}{2} \times \frac{9}{16}$	15° Double End
E-2022	22125	$\frac{5}{8} \times 1\frac{1}{16}$	15° Double End
E-2024	22127	$\frac{5}{8} \times \frac{3}{4}$	15° Double End
E-2426	22131	$\frac{3}{4} \times 1\frac{3}{16}$	15° Double End
E-2428	22133	$\frac{3}{4} \times \frac{7}{8}$	15° Double End
E-3032	22141	$\frac{5}{16} \times 1$	15° Double End
KB-3	80715-09		Pouch

## Set No. B-60003 4 PIECE DOUBLE FLARE NUT WRENCH SET

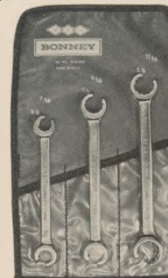
Weight 1.189 lbs.



Catalog No.	E.D.P. No.	Size Opening	O.D. Head	O.A. Length
RF-51	22323	$\frac{3}{8} \times \frac{7}{16}$	$2\frac{7}{32} \times 2\frac{7}{32}$	$5\frac{1}{16}$
RF-52	22325	$\frac{1}{2} \times \frac{9}{16}$	$\frac{7}{8} \times 1\frac{1}{16}$	$6\frac{1}{2}$
RF-53	22327	$\frac{5}{8} \times 1\frac{1}{16}$	$1\frac{3}{64} \times 1\frac{3}{32}$	$7\frac{7}{16}$
RF-54A	22331	$\frac{3}{4} \times \frac{7}{8}$	$1\frac{17}{64} \times 1\frac{7}{16}$	$8\frac{7}{16}$
KB-4	60003-09		Roll	

## Set No. B-82230 3 PIECE DOUBLE OPEN END FLARE NUT WRENCH SET

3 Piece double open end flare nut wrenches. 6 point openings at 15° angle. Weight .688 lbs.



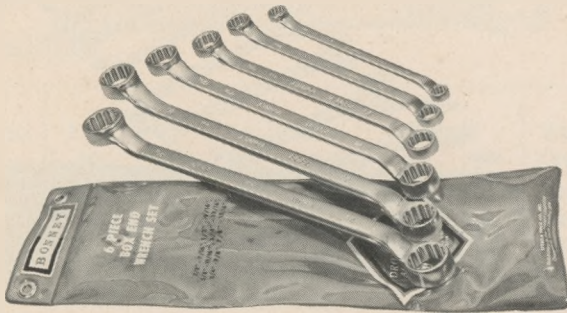
Catalog No.	E.D.P. No.	Size Openings	Head Slot Thickness	Wt. (lbs.)	
EF-1214H	22373	3/8 X 7/16	7/32 X 1 1/64	5/16 X 1 1/32	.106
EF-1618H	22375	1/2 X 9/16	2 1/64 X 1 3/32	3/8 X 3/8	.150
EF-2022H	22377	5/8 X 1 1/16	1 3/32 X 1/2	7/16 X 1/2	.268
KB-5	82230-09	Roll Only			



# BOX END AND COMBINATION WRENCH SETS

## Set No. B-80714 6 PIECE BOX END WRENCH SET IN POUCH $\frac{3}{8}$ "— $\frac{1}{2}$ " LOC-RITE

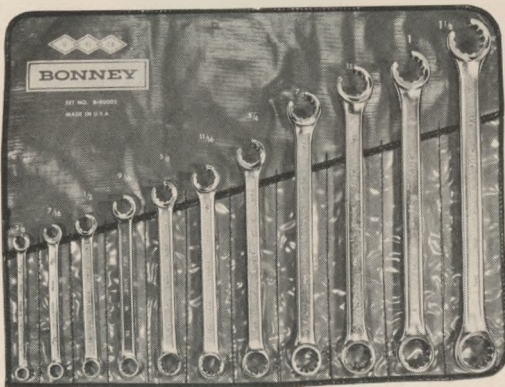
Weight 2.750 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
2804L	24103	$\frac{3}{8} \times \frac{7}{16}$	12 Lobe—45° Offset
2805L	24105	$\frac{1}{2} \times \frac{9}{16}$	12 Lobe—45° Offset
2807A	24109	$\frac{3}{8} \times \frac{1}{2}$	12 Lobe—45° Offset
2808F	24111	$\frac{3}{4} \times \frac{13}{16}$	12 Lobe—45° Offset
2808	24112	$\frac{3}{4} \times \frac{7}{8}$	12 Lobe—45° Offset
2809	24113	$\frac{7}{8} \times \frac{15}{16}$	12 Lobe—45° Offset
KB-6	80714-09		Pouch Only

## Set No. B-60002 11 PIECE COMBINATION BOX AND FLARE NUT WRENCHES LOC-RITE

Packaged in attractive Leatherette roll. Weight 7.189 lbs.



Catalog No.	E.D.P. No.	Size Opening	O.D. Head	O.A. Length
23312	23312	$\frac{3}{8} \times \frac{3}{8}$	$2\frac{3}{32} \times \frac{5}{8}$	5 $\frac{15}{16}$
23314	23314	$\frac{7}{16} \times \frac{7}{16}$	$5\frac{1}{64} \times 4\frac{5}{64}$	6 $\frac{1}{4}$
23316	23316	$\frac{1}{2} \times \frac{1}{2}$	$5\frac{9}{64} \times 5\frac{5}{64}$	6 $\frac{11}{16}$
23318	23318	$\frac{9}{16} \times \frac{9}{16}$	1 & $\frac{7}{8}$	7 $\frac{1}{16}$
23320	23320	$\frac{5}{8} \times \frac{5}{8}$	1 $\frac{1}{64}$ & 1	8 $\frac{3}{32}$
23322	23322	1 $\frac{1}{16}$ & 1 $\frac{1}{8}$	1 $\frac{9}{64}$ & 1 $\frac{1}{8}$	8 $\frac{3}{4}$
23324	23324	$\frac{3}{4} \times \frac{3}{4}$	1 $\frac{17}{64}$ & 1 $\frac{11}{64}$	9 $\frac{3}{4}$
23328	23328	$\frac{7}{8} \times \frac{7}{8}$	1 $\frac{1}{8}$ & 1 $\frac{1}{4}$	11 $\frac{1}{4}$
23330	23330	1 $\frac{1}{8}$ & 1 $\frac{1}{2}$	1 $\frac{17}{32}$ & 1 $\frac{13}{32}$	12 $\frac{27}{32}$
23332	23332	1 & 1	1 $\frac{19}{32}$ & 1 $\frac{33}{64}$	13 $\frac{3}{16}$
23336	23336	1 $\frac{1}{2}$ & 1 $\frac{1}{2}$	1 $\frac{49}{64}$ & 1 $\frac{43}{64}$	14 $\frac{1}{2}$
KB-7	60002-09			Roll Only

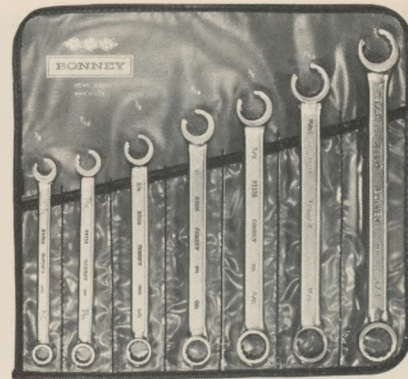
## SET NO. B-80708 6 PIECE COMBINATION WRENCH SET IN ROLL KIT $\frac{3}{8}$ " to 1 $\frac{1}{16}$ "

NOT ILLUSTRATED Weight 4.000 Lbs.

Kit consist of each. No. 1112— $\frac{3}{8}$ "; No. 1114— $\frac{7}{16}$ "; No. 1116— $\frac{1}{2}$ "; No. 1118— $\frac{9}{16}$ "; No. 1120— $\frac{5}{8}$ "; No. 1122—1 $\frac{1}{16}$ ". Kit Bag No. 80703-09

## Set No. B-66257 7 PIECE COMBINATION BOX AND FLARE NUT WRENCHES LOC-RITE

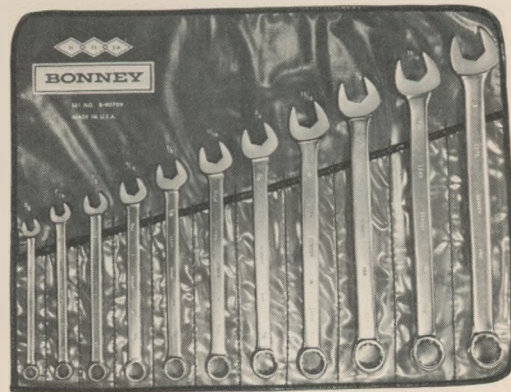
Weight 2.500 lbs.



Catalog No.	E.D.P. No.	Size Opening	O.D. Head	O.A. Length
23312	23312	$\frac{3}{8} \times \frac{3}{8}$	$2\frac{3}{32} \times \frac{5}{8}$	5 $\frac{15}{16}$
23314	23314	$\frac{7}{16} \times \frac{7}{16}$	$5\frac{1}{64} \times 4\frac{5}{64}$	6 $\frac{1}{4}$
23316	23316	$\frac{1}{2} \times \frac{1}{2}$	$5\frac{9}{64} \times 5\frac{5}{64}$	6 $\frac{11}{16}$
23318	23318	$\frac{9}{16} \times \frac{9}{16}$	1 & $\frac{7}{8}$	7 $\frac{1}{16}$
23320	23320	$\frac{5}{8} \times \frac{5}{8}$	1 $\frac{1}{64}$ & 1	8 $\frac{3}{32}$
23322	23322	1 $\frac{1}{16}$ & 1 $\frac{1}{8}$	1 $\frac{9}{64}$ & 1 $\frac{1}{8}$	8 $\frac{3}{4}$
23324	23324	$\frac{3}{4} \times \frac{3}{4}$	1 $\frac{17}{64}$ & 1 $\frac{11}{64}$	9 $\frac{3}{4}$
KB-8	66257-09		Roll Only	

## Set No. B-80709 11 PIECE COMBINATION WRENCH SET IN LEATHERETTE ROLL KIT $\frac{3}{8}$ " to 1". LOC-RITE

Weight 5.500 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
1112	25712	$\frac{3}{8}$	12 Lobe—Long Style
1114	25714	$\frac{7}{16}$	12 Lobe—Long Style
1116	25716	$\frac{1}{2}$	12 Lobe—Long Style
1118	25718	$\frac{9}{16}$	12 Lobe—Long Style
1120	25720	$\frac{5}{8}$	12 Lobw—Long Style
1122	25722	1 $\frac{1}{16}$	12 Lobe—Long Style
1124	25724	$\frac{3}{4}$	12 Lobe—Long Style
1167A	25726	1 $\frac{1}{8}$	12 Lobe—Long Style
1167	25728	$\frac{7}{8}$	12 Lobe—Long Style
1168	25730	1 $\frac{1}{2}$	12 Lobe—Long Style
1170	25732	1	12 Lobe—Long Style
KB-9	80709-09		Roll Only

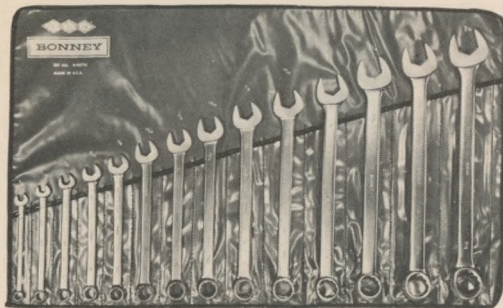


# COMBINATION WRENCH SETS

## LOC-RITE

### Set No. B-80710 14 PIECE COMBINATION WRENCH SET IN LEATHERETTE ROLL KIT $\frac{3}{8}$ " to $1\frac{1}{4}$ "

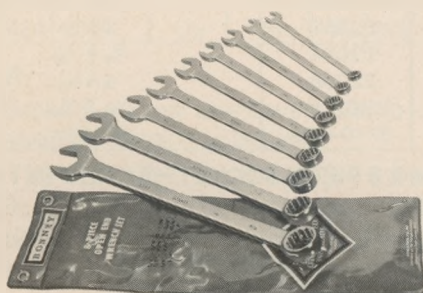
Weight 10.500 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
1112	25712	$\frac{3}{8}$	12 Lobe—Long Style
1114	25714	$\frac{7}{16}$	12 Lobe—Long Style
1116	25716	$\frac{1}{2}$	12 Lobe—Long Style
1118	25718	$\frac{9}{16}$	12 Lobe—Long Style
1120	25720	$\frac{5}{8}$	12 Lobe—Long Style
1122	25722	$1\frac{1}{16}$	12 Lobe—Long Style
1124	25724	$\frac{3}{4}$	12 Lobe—Long Style
1167A	25726	$1\frac{3}{16}$	12 Lobe—Long Style
1167	25728	$\frac{7}{8}$	12 Lobe—Long Style
1168	25730	$1\frac{5}{16}$	12 Lobe—Long Style
1170	25732	1	12 Lobe—Long Style
1171	25734	$1\frac{1}{8}$	12 Lobe—Long Style
1172	25736	$1\frac{1}{4}$	12 Lobe—Long Style
1173	25740	$1\frac{1}{4}$	12 Lobe—Long Style
KB-11	80710-09		Roll Only

### Set No. B-80716 9 PIECE COMBINATION WRENCH SET IN POUCH $\frac{3}{8}$ " — $1\frac{5}{16}$ "

Weight 3.250 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
1112	25712	$\frac{3}{8}$	12 Lobe—Long Size
1114	25714	$\frac{7}{16}$	12 Lobe—Long Size
1116	25716	$\frac{1}{2}$	12 Lobe—Long Size
1118	25718	$\frac{9}{16}$	12 Lobe—Long Size
1120	25720	$\frac{5}{8}$	12 Lobe—Long Size
1122	25722	$1\frac{1}{16}$	12 Lobe—Long Size
1124	25724	$\frac{3}{4}$	12 Lobe—Long Size
1167	25728	$\frac{7}{8}$	12 Lobe—Long Size
1168	25730	$1\frac{5}{16}$	12 Lobe—Long Size
KB-10	80716-09		Pouch Only

### Set No. B-80722 11 PIECE SATIN-FINISH COMBINATION WRENCH SET IN POUCH

Weight 5.250 lbs.

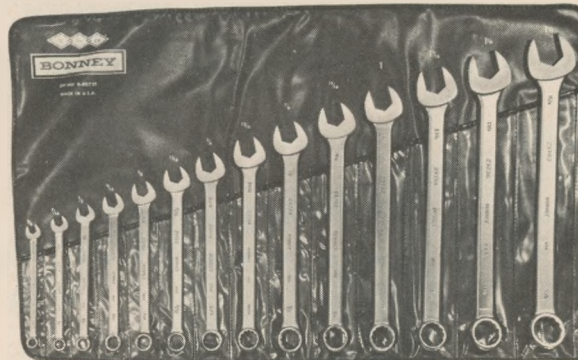


Catalog No.	E.D.P. No.	Size Opening	Description
23712	23712-00	$\frac{3}{8}$	12 Lobe—Long Style
23714	23714-00	$\frac{7}{16}$	12 Lobe—Long Style
23716	23716-00	$\frac{1}{2}$	12 Lobe—Long Style
23718	23718-00	$\frac{9}{16}$	12 Lobe—Long Style
23720	23720-00	$\frac{5}{8}$	12 Lobe—Long Style
23722	23722-00	$1\frac{1}{16}$	12 Lobe—Long Style
23724	23724-00	$\frac{3}{4}$	12 Lobe—Long Style
23726	23726-00	$1\frac{3}{16}$	12 Lobe—Long Style
23728	23728-00	$\frac{7}{8}$	12 Lobe—Long Style
23730	23730-00	$1\frac{5}{16}$	12 Lobe—Long Style
23732	23732-00	1	12 Lobe—Long Style
KB-13	80722-09		Pouch Only

### Set No. B-80721 14 PIECE SATIN-FINISH COMBINATION WRENCH SET IN LEATHERETTE

Roll kit  $\frac{3}{8}$ " to  $1\frac{1}{4}$ "

Weight 11.000 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
23712	23712-00	$\frac{3}{8}$	12 Lobe—Long Style
23714	23714-00	$\frac{7}{16}$	12 Lobe—Long Style
23716	23716-00	$\frac{1}{2}$	12 Lobe—Long Style
23718	23718-00	$\frac{9}{16}$	12 Lobe—Long Style
23720	23720-00	$\frac{5}{8}$	12 Lobe—Long Style
23722	23722-00	$1\frac{1}{16}$	12 Lobe—Long Style
23724	23724-00	$\frac{3}{4}$	12 Lobe—Long Style
23726	23726-00	$1\frac{3}{16}$	12 Lobe—Long Style
23728	23728-00	$\frac{7}{8}$	12 Lobe—Long Style
23730	23730-00	$1\frac{5}{16}$	12 Lobe—Long Style
23732	23732-00	1	12 Lobe—Long Style
23734	23734-00	$1\frac{1}{8}$	12 Lobe—Long Style
23736	23736-00	$1\frac{1}{4}$	12 Lobe—Long Style
23740	23740-00	$1\frac{1}{4}$	12 Lobe—Long Style
KB-14	80721-09		Roll Only

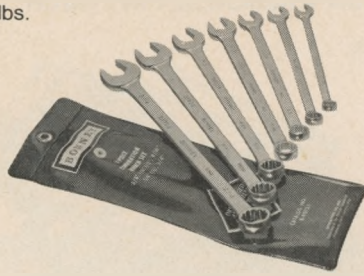
NOTE: FOR WARRANTY SEE PAGE 95.



## OTHER WRENCH SETS

### Set No. B-80723 7 PIECE SATIN FINISH LOC-RITE COMBINATION WRENCH SET IN POUCH

Weight 2.000 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
23712	23712-00	3/8	12 Lobe—Long Style
23714	23714-00	7/16	12 Lobe—Long Style
23716	23716-00	1/2	12 Lobe—Long Style
23718	23718-00	9/16	12 Lobe—Long Style
23720	23720-00	5/8	12 Lobe—Long Style
23722	23722-00	11/16	12 Lobe—Long Style
23724	23724-00	15/16	12 Lobe Long Style
KB-15	80723-09	3/4	Pouch Only

### Set No. B-80726 6 PIECE SATIN FINISH OPEN END WRENCH SET IN POUCH

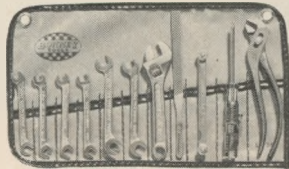
Weight 1.813 lbs.



Catalog No.	E.D.P. No.	Size Opening	Description
23103	23103	1/4 x 3/8	15° Double End
23109	23109	3/8 x 7/16	15° Double End
23117	23117	1/2 x 9/16	15° Double End
23125	23125	5/8 x 11/16	15° Double End
23131	23131	3/4 x 13/16	15° Double End
23137	23137	7/8 x 15/16	15° Double End
KB-18	80726-09		Pouch Only

### Set No. N11R 11 PIECE IGNITION WRENCH SET

Weight .625 lbs.



Catalog No.	E.D.P. No.	Description	
		15° End	60° End
E-14	22014	13/64	15/64
E-16	22016	15/64	13/64
E-18	22018	7/32	1/4
E-20	22020	1/4	7/32
E-22	22022	9/32	5/16
E-24	22024	5/16	9/32
507-5	12235	Ignition Plier	
91-4	21041	Adjust. End Wrench, 4"	
EO-2	90182	Neon Screw Driver	
FIP	91552	Point File	
K-52	91252	Ignition Feeler Gauge	
KB-19	87106	Roll Only	

### Set No. N24R 9 PIECE IGNITION WRENCH SET

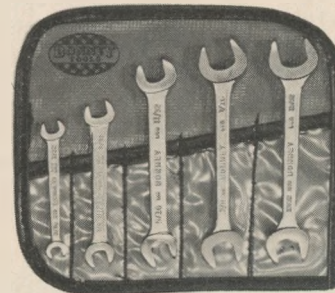
Weight .438 lbs.



Catalog No.	E.D.P. No.	Description	
		15° End	60° End
E-14	22014	13/64	15/64
E-16	22016	15/64	13/64
E-18	22018	7/32	1/4
E-20	22020	1/4	7/32
E-22	22022	9/32	5/16
E-24	22024	5/16	9/32
E-26	22026	11/32	3/8
E-28	22028	3/8	11/32
E-30	22030	7/16	1/2
KB-21	87105-09	Roll Only	

### Set No. N-20R 5 PIECE IGNITION WRENCH SET

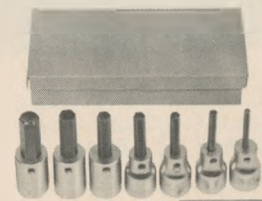
Weight .282 lbs.



Catalog No.	E.D.P. No.	Openings
H-10	22050	3/16 & 7/32
H-12	22052	1/4 & 9/32
H-14	22054	5/16 & 11/32
H-16	22056	3/8 & 7/16
H-18	22058	13/32 & 15/32
KB-20	87104-09	Roll Only

### Set No. TWB 8 PIECE SOCKET HEX KEY SET IN METAL BOX

Weight .845 lbs.



Catalog No.	E.D.P. No.	Hex Size
TW-4B	41379	1/8
TW-5B	41380	5/32
TW-6B	41381	3/16
TW-7B	41382	7/32
TW-8B	41383	1/4
TW-10B	41384	5/16
TW-12B	41385	3/8
AW-2 1/2	29025	Hex Key
MB-8	81008-00	Metal box, red, 4 1/2" long, 2" wide, 3/4" deep

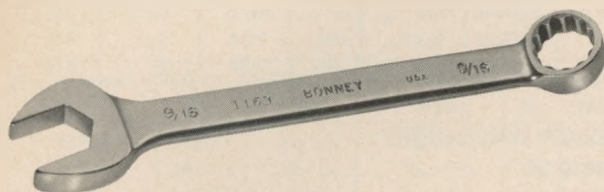


# COMBINATION WRENCHES

## BONNEY COMBINATION WRENCHES

Bonney Hex-Fit Combination Wrench series represents the ultimate in wrench design. Short and long styles have 6 point or 12 lobe box end openings and the "hex shape" in the open end. The slim design assures maximum working clearances along with precise fit on nuts, bolts or fasteners. Forged from special alloy steel, accurately machined, hardened and tempered for maximum strength and rugged service. These wrenches are available in either a full polish or satin beam finish and nickel chrome plated.

## LOC-RITE COMBINATION—12 LOBE—SHORT



Catalog No.	E.D.P. No.	Opening	Head Diameter		O.A. Length		Wt. Lbs.
			Box End	Open End	In.	MM	
1157	25508	1/4	13/32	17/32	3 3/32	82.6	.04
1159	25510	5/16	15/32	1 1/8	4 7/32	107.2	.044
1159A	25511	11/32	33/64	45/64	4 7/32	119.1	.044
1160	25512	3/8	9/16	49/64	4 11/16	119.1	.075
1161	25514	7/16	41/64	29/32	5 3/16	131.8	.100
1162	25516	1/2	23/32	1 1/32	5 11/16	144.5	.133
1163	25518	9/16	13/16	1 11/64	6 3/32	157.6	.188
1164	25520	5/8	29/32	1 9/32	6 27/32	157.9	.233
1165	25522	11/16	31/32	1 13/32	7 15/32	189.7	.275
1166	25524	3/4	1 1/16	1 38/64	8 1/8	206.4	.333

### TOOL TIP:

Universal Sockets are real time savers but do not hold a spinning impact universal in your hand.

### TOOL TIP:

An adjustable wrench must be properly tightened and fully seated. Also avoid using too small a wrench.

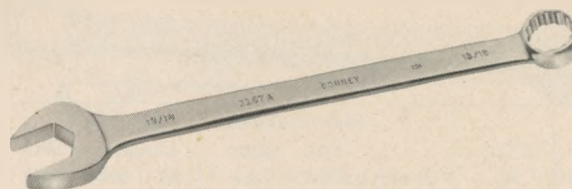
### TOOL TIP:

Do not use punches and chisels with mushroomed heads. And to prevent scraped knuckles use a punch and chisel holder.

### TOOL TIP:

All electrical equipment should be properly grounded.

## LOC-RITE COMBINATION—12 LOBE—LONG



Catalog No.	E.D.P. No.	Opening	Head Diameter		O.A. Length		Wt. Lbs.
			Box End	Open End	In.	MM	
1112	25712	3/8	19/32	51/64	6 5/8	168.3	.100
1114	25714	7/16	43/64	15/16	7 1/4	184.2	.156
1116	25716	1/2	25/32	1 1/8	7 25/32	197.2	.188
1118	25718	9/16	55/64	1 3/16	8 11/32	211.9	.219
1120	25720	5/8	31/32	1 9/16	9	228.6	.281
1122	25722	11/16	1 1/32	1 7/16	9 23/32	246.9	.344
1124	25724	3/4	1 1/8	1 9/16	10 5/32	265.9	.400
1167A	25726	13/16	1 13/64	1 11/16	11 5/32	273.4	.600
1167	25728	7/8	1 7/16	1 3/8	12 3/16	309.6	.750
1168	25730	15/16	1 13/32	1 5/8	13 1/16	331.8	.875
1170	25732	1	1 31/64	2 1/16	13 5/16	354.0	1.200
1171	25734	1 1/16	1 39/64	2 1/8	14 27/32	377.0	1.400
1172	25736	1 1/8	1 45/64	2 5/16	15 3/32	399.3	1.750
1173	25740	1 1/4	1 55/64	2 9/16	16 1/2	419.1	2.050
*1174	24742	1 1/16	1 55/64	2	18	457.2	2.675
*1176	25746	1 7/16	2 11/64	3 3/32	21 1/4	539.8	4.175
*1178	25748	1 1/2	2 11/64	3 3/32	21 1/4	539.8	4.000

\*Satin Finish

## LOC-RITE COMBINATION—12 LOBE—LONG SATIN FINISH

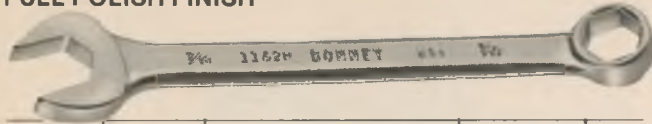


Catalog No.	E.D.P. No.	Opening	Box End	Open End	O.A. Length		Wt. Lbs.
					In.	MM	
23712	23712-00	3/8	19/32	51/64	6 5/8	168.3	.100
23714	23714-00	7/16	43/64	15/16	7 1/4	184.2	.156
23716	23716-00	1/2	25/32	1 1/8	7 25/32	197.2	.188
23718	23718-00	9/16	55/64	1 3/16	8 11/32	211.9	.219
23720	23720-00	5/8	31/32	1 9/16	9	228.6	.281
23722	23722-00	11/16	1	1 7/16	9 23/32	246.9	.334
23724	23724-00	3/4	1 1/8	1 9/16	10 5/32	265.9	.400
23726	23726-00	13/16	1 13/64	1 11/16	11 5/32	273.4	.600
23728	23728-00	7/8	1 7/16	1 3/8	12 3/16	309.6	.750
23730	23730-00	15/16	1 13/32	1 5/8	13 1/16	331.8	.875
23732	23732-00	1	1 31/64	2 1/16	13 5/16	354.0	1.200
23734	23734-00	1 1/16	1 39/64	2 1/8	14 27/32	377.0	1.400
23736	23736-00	1 1/8	1 45/64	2 5/16	15 3/32	399.3	1.750
23740	23740-00	1 1/4	1 55/64	2 9/16	16 1/2	419.1	2.050



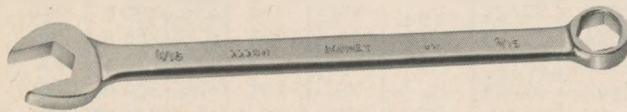
# COMBINATION, OPEN END AND IGNITION WRENCHES

## COMBINATION—6 POINT—SHORT FULL POLISH FINISH



Catalog No.	E.D.P. No.	Head Diameter			O.A. Length		Wt. Lbs.
		Opening	Box End	Open End	In.	MM	
1158H	25408	1/4	13/32	17/32	3 23/32	95.3	.06
1159H	25409	5/32	13/32	17/32	3 23/32	107.2	.065
1160H	25410	3/16	13/32	17/32	4 7/32	108	.07
1161H	25412	3/8	9/16	49/64	4 11/16	119.1	.075
1162H	25414	7/16	41/64	29/32	5 3/16	131.8	.100
1163H	25416	1/2	23/32	1 1/32	5 11/16	144.5	.133
1164H	25418	9/16	13/16	1 1/16	6 3/32	157.9	.188

## COMBINATION—6 POINT—LONG FULL POLISH FINISH

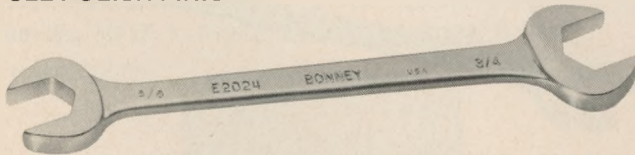


Catalog No.	E.D.P. No.	Opening	Head Diameter		O.A. Length		Wt. Lbs.
			Box End	Open End	In.	MM	
1112H	25612	3/8	9/16	49/64	6 5/8	168.3	.100
1114H	25614	7/16	41/64	29/32	7 1/4	184.2	.156
1116H	25616	1/2	23/32	1 1/32	7 25/32	197.6	.188
1118H	25618	9/16	13/16	1 11/64	8 11/32	211.9	.219
1120H	25620	5/8	29/32	1 9/32	9	228.6	.218
1122H	25622	11/16	31/32	1 27/64	9 23/32	246.9	.344
1124H	25624	3/4	1 1/16	1 37/64	10 15/32	265.9	.400

### BONNEY OPEN END WRENCHES

Bonney Open End Wrenches are streamlined in every respect to provide the lightest, strongest wrench possible. Forged from a special alloy steel the openings are accurately machined in a "hex shape" for a solid fit and to apply pressure on four sides of hex fasteners. Each wrench is uniformly hardened and tempered for long dependable service. These wrenches are available in either full polish or satin beam finish, and nickel chrome plated.

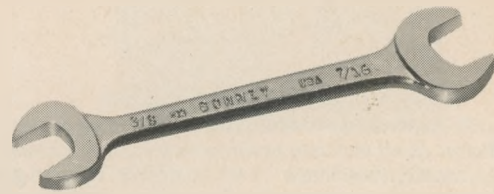
## DOUBLE OPEN END 15° FULL POLISH FINISH



Catalog No.	E.D.P. No.	Opening	O.A. Length		Head Thkns.	Wt. Lbs.
			In.	MM.		
E-810	22103	1/4 x 3/16	4 1/4	88.9	11/64	.044
E-1012	22107	3/16 x 3/8	4 3/4	114.3	13/64	.056
E-1214	22109	3/8 x 7/16	5 1/4	127.0	7/32	.100
E-1416	22113	7/16 x 1/2	5 3/4	146.1	1/4	.119
E-1618	22117	1/2 x 9/16	6 1/4	158.8	13/64	.169
E-1820	22119	9/16 x 5/8	7	171.5	1/8	.213
E-2022	22125	5/8 x 11/16	7 3/4	190.5	19/64	.275
E-2024	22127	3/4 x 3/4	7 3/4	196.9	19/64	.319
E-2426	22131	3/4 x 13/16	9 1/4	235	3/8	.456
E-2428	22133	3/4 x 7/8	9 5/8	244.5	23/64	.456
E-2830	22137	7/8 x 15/16	10 3/4	260.4	25/64	.725
E-3032	22141	15/16 x 1	11 1/2	279.4	27/64	.863
E-3436	22147	1 1/16 x 1 1/8	13 3/16	320.7	29/64	1.019
*E-4042	22153	1 1/4 x 1 1/16	14 3/4	374.7	17/32	1.644

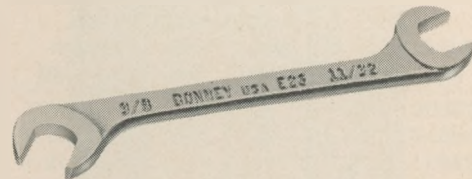
\*Satin Finish

## MINIATURE WRENCHES 15° DOUBLE OPEN END



Catalog No.	E.D.P. No.	Opening	O.A. Length		Head Thkns.	Wt. Lbs.
			In.	MM		
H-10	22050	3/16 x 7/32	2 31/64	63.1	7/64	.013
H-12	22052	1/4 x 9/32	3	76.2	3/32	.028
H-14	22054	5/16 x 11/32	3 11/16	94.5	3/16	.047
H-16	22056	3/8 x 7/16	4 3/32	104	7/32	.081
H-18	22058	13/32 x 15/32	4 3/32	104	7/32	.078

## IGNITION WRENCHES 15° and 50°



Catalog No.	E.D.P. No.	Opening	O.A. Length		Head Thkns.	Wt. Lbs.
			In.	MM.		
E-14	22014	13/64 x 15/64	3 1/2	76.2	7/64	.016
E-16	22016	15/64 x 13/64	3 1/2	76.2	7/64	.019
E-18	22018	7/32 x 1/4	3 1/2	76.2	7/64	.019
E-20	22020	1/4 x 7/32	3 1/2	76.2	7/64	.016
E-22	22022	9/32 x 5/16	3 17/32	88.9	1/8	.028
E-24	22024	5/16 x 9/32	3 17/32	88.9	1/8	.028
E-26	22026	11/32 x 3/8	4	101.6	9/64	.041
E-28	22028	3/8 x 11/32	4	101.6	9/64	.044
E-30	22030	7/16 x 1/2	4 1/2	114.3	11/64	.072

## DOUBLE OPEN END 15° SATIN FINISH



Catalog No.	E.D.P. No.	Opening	O.A. Length		Head Thkns.	Wt. Lbs.
			In.	MM.		
23103	23103	1/4 x 3/16	4 1/2	88.9	11/64	.044
23109	23109	3/8 x 7/16	5 1/4	127.0	7/32	.100
23117	23117	1/2 x 9/16	6 1/4	158.8	13/64	.169
23125	23125	5/8 x 11/16	7 3/4	190.5	15/64	.275
23131	23131	3/4 x 13/16	9 1/4	235.0	3/8	.456
23137	23137	7/8 x 15/16	10 3/4	260.4	25/64	.725

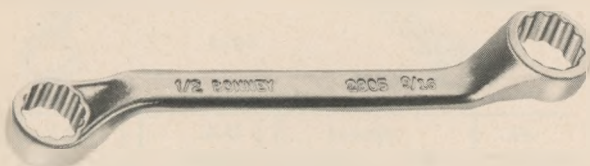


# BOX END, RATCHETING BOX AND FLARENUT WRENCHES

## BOX END WRENCHES

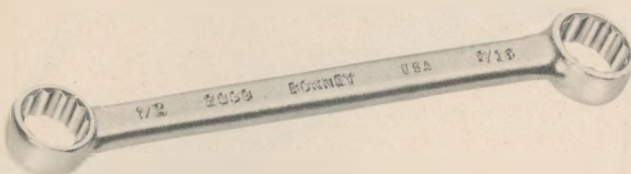
Bonney Box End Wrenches are dropped forged from special alloy steel, accurately machined for best functional fit on fasteners. They are uniformly hardened and tempered for maximum strength and durability. Nickel chrome plated for corrosion resistance and fine appearance.

## LOC-RITE DOUBLE OFFSET BOX END WRENCHES 12 LOBE—SHORT 45°



Catalog No.	E.D.P. No.	Opening Sizes	O.D. Heads	Length In.	MM	Wt. Lbs.
2803	24611	$\frac{5}{16} \times \frac{3}{8}$	$\frac{15}{32} \times \frac{9}{16}$	4 $\frac{1}{2}$	114.3	.050
2804	24613	$\frac{3}{8} \times \frac{7}{16}$	$\frac{39}{64} \times \frac{49}{64}$	4 $\frac{3}{4}$	120.7	.106
2805	24615	$\frac{1}{2} \times \frac{9}{16}$	$\frac{51}{64} \times \frac{57}{64}$	5 $\frac{5}{8}$	139.7	.163
2806	24616	$\frac{9}{16} \times \frac{5}{8}$	$\frac{57}{64} \times \frac{63}{64}$	5 $\frac{3}{4}$	146.1	.150
2807B	24619	$\frac{5}{8} \times \frac{3}{4}$	$\frac{29}{32} \times 1 \frac{1}{64}$	6 $\frac{3}{32}$	156.4	.253

## LOC-RITE DOUBLE OFFSET BOX END WRENCHES 12 LOBE—SHORT 15°



Catalog No.	E.D.P. No.	Opening Sizes	O.D. Heads	Length In.	MM	Wt. Lbs.
2886	24023	$\frac{3}{8} \times \frac{7}{16}$	$\frac{9}{16} \times 2 \frac{1}{32}$	4 $\frac{1}{2}$	108.0	.075
2888	24025	$\frac{1}{2} \times \frac{9}{16}$	$\frac{11}{16} \times \frac{11}{16}$	5 $\frac{1}{2}$	127.0	.106
2889	24027	$\frac{5}{8} \times 1 \frac{1}{16}$	$1 \frac{1}{8} \times 1$	6 $\frac{1}{8}$	146.1	.163

## RATCHETING BOX WRENCHES 6 POINT



Catalog No.	E.D.P. No.	Opening	Thkns.	Length In.	MM	Wt. Lbs.
RB-810	24550	$\frac{1}{4} \times \frac{5}{16}$	$\frac{3}{8}$	5 $\frac{1}{2}$	139.7	.22
RB-1214	24554	$\frac{3}{8} \times \frac{7}{16}$	$\frac{3}{8}$	5 $\frac{1}{2}$	139.7	.22
RB-1618	24558	$\frac{1}{2} \times \frac{9}{16}$	$\frac{1}{2}$	6 $\frac{1}{2}$	165.1	.44

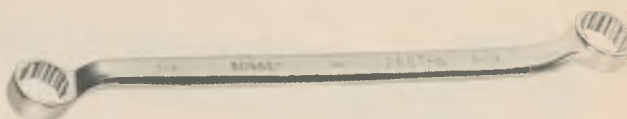
### 12-POINT

Catalog No.	E.D.P. No.	Opening	Thkns.	Length In.	MM	Wt. Lbs.
RB-2022	24542	$\frac{3}{8} \times 1 \frac{1}{16}$	$\frac{1}{2}$	8	203.2	.64
RB-2024	24544	$\frac{3}{8} \times \frac{3}{4}$	$\frac{1}{2}$	8	203.2	.65
RB-2428	24548	$\frac{3}{4} \times \frac{7}{8}$	$\frac{1}{2}$	9 $\frac{1}{4}$	235.0	.75

### TOOL TIP:

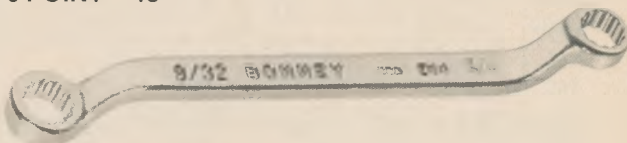
Do not hit one hammer with another.

## LOC-RITE DOUBLE OFFSET BOX END WRENCHES 12 LOBE—LONG 45°



Catalog No.	E.D.P. No.	Opening Sizes	O.D. Heads	Length In.	MM	Wt. Lbs.
2804 L	24103	$\frac{3}{8} \times \frac{7}{16}$	$1 \frac{1}{32} \times \frac{43}{64}$	7 $\frac{1}{32}$	190.5	.119
2805 L	24105	$\frac{1}{2} \times \frac{9}{16}$	$\frac{3}{4} \times \frac{53}{64}$	8 $\frac{4}{64}$	222.3	.206
2806 L	24107	$\frac{5}{8} \times \frac{5}{8}$	$\frac{53}{64} \times \frac{29}{32}$	9 $\frac{7}{32}$	235.0	.256
2807 A	24109	$\frac{3}{4} \times 1 \frac{1}{16}$	$1 \frac{1}{16} \times 1 \frac{1}{64}$	9 $\frac{4}{64}$	247.7	.338
2807	24110	$\frac{3}{8} \times \frac{3}{4}$	$3 \frac{1}{32} \times 1 \frac{1}{8}$	11 $\frac{1}{32}$	279.4	.531
2808 F	24111	$\frac{3}{4} \times 1 \frac{1}{16}$	$1 \frac{3}{32} \times 1 \frac{1}{8}$	12 $\frac{1}{2}$	316.9	.500
2808	24112	$\frac{3}{4} \times \frac{7}{8}$	$1 \frac{1}{64} \times 1 \frac{23}{64}$	13 $\frac{3}{16}$	330.2	.775
2809	24113	$\frac{7}{8} \times 1 \frac{1}{16}$	$1 \frac{9}{32} \times 1 \frac{3}{8}$	13 $\frac{3}{16}$	334.9	.769

## MINIATURE DOUBLE OFFSET BOX WRENCHES 6 POINT—45°



Catalog No.	E.D.P. No.	Opening Sizes	O.D. Heads	Length In.	MM	Wt. Lbs.
E-40	24321	$\frac{3}{16} \times \frac{13}{64}$	$1 \frac{1}{64} \times 2 \frac{1}{64}$	2 $\frac{7}{8}$	73.0	.025
E-42	24322	$\frac{7}{32} \times 1 \frac{1}{64}$	$1 \frac{1}{32} \times \frac{3}{8}$	3 $\frac{1}{8}$	79.4	.025

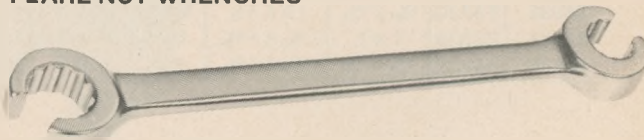
### 12 LOBE—45°

Catalog No.	E.D.P. No.	Opening Sizes	O.D. Heads	Length In.	MM	Wt. Lbs.
E-40 A	24311	$\frac{3}{16} \times \frac{7}{32}$	$1 \frac{1}{64} \times 2 \frac{1}{64}$	2 $\frac{7}{8}$	74.6	.009
E-44	24323	$\frac{1}{4} \times \frac{9}{32}$	$\frac{7}{16} \times 2 \frac{5}{64}$	3 $\frac{3}{8}$	85.7	.031
E-46	24324	$\frac{5}{16} \times 1 \frac{1}{32}$	$\frac{1}{2} \times \frac{9}{16}$	4 $\frac{3}{8}$	95.3	.041

## FLARE NUT WRENCHES

Especially designed with chambered openings and high head to beam clearance for maximum utility on fuel, oil and hydraulic line fittings. These wrenches are accurately broached with the Loc-Rite configuration and meet the non-distorting high torque requirements of Federal Specification GGG-W-00645. These are forged from a special alloy steel uniformly hardened and tempered, and nickel chrome plated.

## LOC-RITE 12 LOBE 30° ANGLE FLARE NUT WRENCHES



Catalog No.	E.D.P. No.	Opening	O. A. Length In.	MM	Head Slot	Thick.	Wt. Lbs.
RF-51	22323	$\frac{3}{8} \times \frac{7}{16}$	5 $\frac{1}{16}$	144.5	$1 \frac{1}{32} \times \frac{9}{32}$	$\frac{5}{16} \times 1 \frac{1}{32}$	.120
RF-52	22325	$\frac{1}{2} \times \frac{9}{16}$	6 $\frac{1}{2}$	165.1	$2 \frac{1}{64} \times 1 \frac{1}{32}$	$\frac{3}{8} \times \frac{3}{8}$	.135
RF-53	22327	$\frac{5}{8} \times 1 \frac{1}{16}$	7 $\frac{1}{16}$	185.7	$1 \frac{13}{32} \times \frac{29}{64}$	$\frac{7}{16} \times \frac{1}{2}$	.250
RF-54 A	22331	$\frac{3}{4} \times \frac{7}{8}$	8 $\frac{5}{16}$	203.2	$1 \frac{19}{32} \times \frac{5}{8}$	$1 \frac{15}{32} \times \frac{5}{8}$	.488

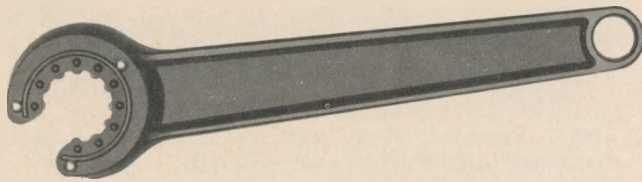
### 12 LOBE 7½° ANGLE

Catalog No.	E.D.P. No.	Opening	O. A. Length In.	MM	Head Slot	Thick.	Wt. Lbs.
RF-54 B	22351	$\frac{5}{8} \times 1 \frac{1}{16}$	7 $\frac{3}{32}$		$\frac{5}{8} \times \frac{7}{16}$	$1 \frac{13}{32} \times \frac{5}{8}$	.456
RF-54	22354	$\frac{3}{4} \times 1$	8	203.2	$1 \frac{19}{32} \times 1 \frac{13}{16}$	$1 \frac{15}{32} \times \frac{5}{8}$	.456
RF-55 A	22355	$\frac{7}{8} \times 1$	9 $\frac{1}{2}$	241.3	$\frac{3}{4} \times 1 \frac{9}{16}$	$1 \frac{35}{64} \times \frac{49}{64}$	.856
RF-55	22356	$\frac{7}{8} \times 1 \frac{1}{8}$	9 $\frac{1}{2}$	241.3	$\frac{5}{8} \times 2 \frac{5}{32}$	$1 \frac{35}{64} \times \frac{49}{64}$	.788
RF-57	22357	$1 \frac{1}{8} \times 1 \frac{1}{16}$	8 $\frac{21}{32}$	219.9	$1 \frac{33}{64} \times 1 \frac{11}{16}$	$1 \frac{39}{64} \times \frac{47}{64}$	1.000
RF-58	22358	$1 \frac{1}{8} \times 1 \frac{1}{16}$	10 $\frac{1}{4}$	260.4	$\frac{5}{8} \times 2 \frac{5}{64}$	$1 \frac{5}{8} \times \frac{7}{8}$	1.120



# WRENCHES

## UTICA-BONNEY CAM-LOCK RATCHETING FLARE NUT WRENCHES



Catalog No.	E.D.P. No.	Size Openings	O.D. Head	O.A. Length		Wt. Lbs.
				In.	MM	
43212	43212	3/8	1.18	5 1/32	135.7	.250
43214	43214	7/16	1.25	5 3/8	136.5	.250
43216	43216	1/2	1.36	5 7/16	138.1	.250
43218	43218	9/16	1.52	6 1/32	164.3	.380
43220	43220	5/8	1.72	6 7/32	179.8	.410
43222	43222	11/16	1.80	7 3/8	187.3	.450
43224	43224	3/4	1.88	8 3/8	206.4	.500
43228	43228	7/8	2.20	9 1/2	241.3	.750
43232	43232	1	2.40	10 13/16	274.6	.880

## LOC-RITE 12 LOBE COMBINATION BOX—FLARE WRENCHES 30° ANGLE



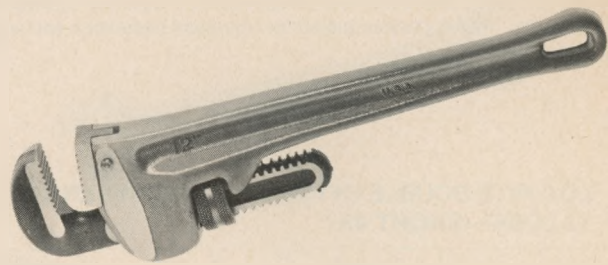
Catalog No.	E.D.P. No.	Size Openings	O.D. Head	O.A. Length		Wt. Lbs.
				In.	MM	
23312	23312	3/8 x 3/8	2 3/8 & 3/8	5 1/16	150.8	.120
23314	23314	7/16 x 7/16	5 1/16 & 4 9/16	6 3/8	158.8	.180
23316	23316	1/2 x 1/2	5 9/16 & 4 9/16	6 11/16	169.9	.250
23318	23318	9/16 x 9/16	1 & 5 5/16	7 7/16	189	.330
23320	23320	5/8 x 5/8	1 1/4 & 1	8 1/32	203.9	.350
23322	23322	11/16 x 11/16	1 5/8 & 1 1/8	8 3/4	222.3	.500
23324	23324	3/4 x 3/4	1 17/16 & 1 11/16	9 3/8	247.7	.700
23328	23328	7/8 x 7/8	1 7/8 & 1 5/8	11 3/8	298.5	.750
23330	23330	15/16 x 15/16	1 1/2 & 1 3/8	12 11/16	311.5	1.000
23332	23332	1 x 1	1 19/32 & 1 33/64	13 3/16	334.9	1.120
23336	23336	1 1/8 x 1 1/8	1 49/64 & 1 43/64	14 1/2	368.3	1.250

## 6 POINT COMBINATION BOX FLARE WRENCHES 15° ANGLE



Catalog No.	E.D.P. No.	Size Open.	O.A.L.	MM	Slot Opening	Head Thk.	Wt. Lbs.
EF1214H	22373	3/8 x 7/8	5 1/8	144.5	7/32 x 17/64	5/16 x 11/32	.106
EF1618H	22375	1/2 x 9/16	6 1/8	160.3	2 1/4 x 1 3/8	3/8 x 3/8	.150
EF2022H	22377	3/4 x 1 1/8	7 1/8	185.7	1 3/32 x 1 1/2	7/16 x 1/2	.268

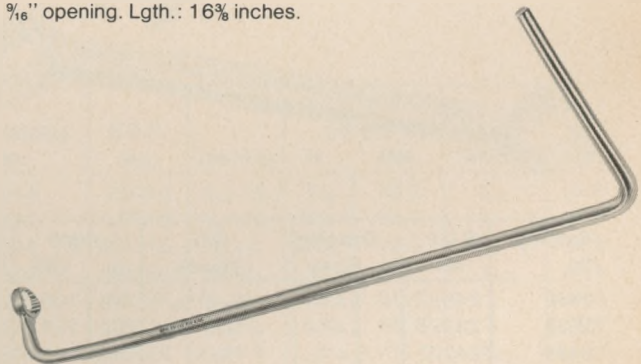
## PIPE WRENCHES—HEAVY DUTY



Catalog No.	E.D.P. No.	Max. Pipe Size	O.A. Length		Diameter	Wt. Lbs.
			In.	MM		
PW-6	21206	3/4	5 1/2	139.7	1 1/8	0.5
PW-8	21208	1	7 3/8	187.3	2 1/8	1.0
PW-10	21210	1 1/2	9 3/4	247.7	2 1/2	2.0
PW-12	21212	2	11 1/2	292.1	3	3.0
PW-14	21214	2 1/2	13	330.2	3 3/8	3.5
PW-18	21218	3 1/2	16 1/2	419.1	3 3/4	5.5
PW-24	21224	4 1/2	22 1/4	565.2	4 1/4	9.7

## DISTRIBUTOR WRENCHES

5/16" opening. Lgth.: 16 3/8 inches.



Catalog No.	EDP NO.		WT. LBS.
6508	24908	415.9	.671

1/2" opening for Fords, Mercurys, Lincolns, Larks, Cadillacs, Chrysler Imperials, Falcons and Comet 6 cylinder cars. Length: 9 3/4".

(Not Illustrated)

6510	24910	238.1	.447
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## TOOL TIP:

It is safer and easier to use one correct length extension instead of many.

## TOOL TIP:

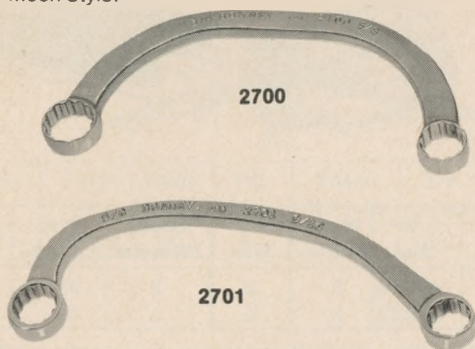
Do not use pliers as wrenches, rounded corners will result.



# WRENCHES

## STARTER AND MANIFOLD WRENCHES

Half-Moon Style.

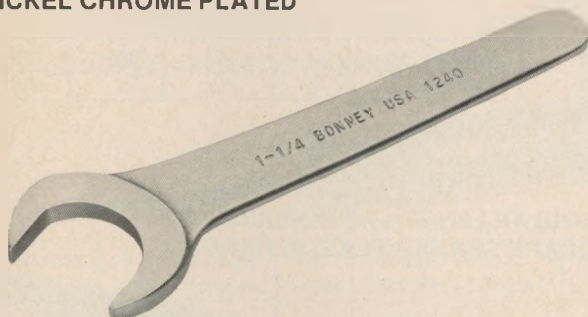


Catalog No.	E.D.P. No.	Opening	Length		Wt. Lbs.
			In.	MM	
2700	24940	$\frac{5}{8} \times \frac{3}{4}$	$6\frac{13}{32}$	162.7	.125
2701	24946	$\frac{9}{16} \times \frac{5}{8}$	$6\frac{39}{64}$	167.9	.127

## SERVICE WRENCHES

These wrenches have extra thin heads set at a 30° angle from handle for working in very close quarters. Especially useful in a wide range of aircraft applications. Wrenches Nos. 1236, 1240, 1244 and 1252 are used on sporlan expansion valves (see refrigeration section).

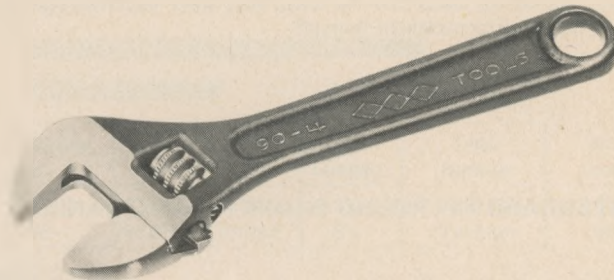
## SERVICE WRENCHES NICKEL CHROME PLATED



Catalog No.	E.D.P. No.	Opening	Length	Dia. Head	Thkns. Head	Wt. Lbs.
1224	22524	$\frac{3}{4}$	6 $\frac{1}{4}$	1 $\frac{1}{16}$	$\frac{1}{4}$	.188
1226	22526	$\frac{13}{16}$	6 $\frac{1}{4}$	1 $\frac{1}{16}$	$\frac{1}{4}$	.250
1228	22528	$\frac{7}{8}$	6 $\frac{1}{4}$	1 $\frac{1}{16}$	$\frac{1}{4}$	.188
1230	22530	$\frac{15}{16}$	6 $\frac{1}{8}$	1 $\frac{1}{8}$	$\frac{1}{4}$	.250
1232	22532	1	6 $\frac{7}{8}$	1 $\frac{1}{8}$	$\frac{1}{4}$	.250
1234	22534	1 $\frac{1}{16}$	6 $\frac{7}{8}$	1 $\frac{1}{8}$	$\frac{1}{4}$	.250
1236	22536	1 $\frac{1}{8}$	7	2 $\frac{1}{16}$	$\frac{1}{4}$	.250
1238	22538	1 $\frac{3}{16}$	7	2 $\frac{1}{16}$	$\frac{1}{4}$	.250
1240	22540	1 $\frac{1}{4}$	7	2 $\frac{1}{16}$	$\frac{1}{4}$	.250
1242	22542	1 $\frac{5}{16}$	7 $\frac{1}{16}$	2 $\frac{1}{2}$	$\frac{9}{32}$	.500
1244	22544	1 $\frac{3}{8}$	7 $\frac{1}{16}$	2 $\frac{1}{2}$	$\frac{9}{32}$	.500
1246	22546	1 $\frac{7}{16}$	7 $\frac{1}{16}$	2 $\frac{1}{2}$	$\frac{9}{32}$	.438
1248	22548	1 $\frac{1}{2}$	7 $\frac{1}{16}$	2 $\frac{1}{2}$	$\frac{9}{32}$	.438
1250	22550	1 $\frac{15}{16}$	7 $\frac{1}{16}$	2 $\frac{5}{8}$	$\frac{9}{32}$	.500
1252	22552	1 $\frac{3}{4}$	7 $\frac{1}{16}$	2 $\frac{5}{8}$	$\frac{9}{32}$	.500
1256	22556	1 $\frac{3}{4}$	8 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{5}{16}$	.688
1258	22558	1 $\frac{13}{16}$	8 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{5}{16}$	.750
1260	22560	1 $\frac{7}{8}$	8 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{5}{16}$	.750
1262	22562	1 $\frac{15}{16}$	8 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{5}{16}$	.750
1264	22564	2	8 $\frac{1}{8}$	3 $\frac{1}{2}$	$\frac{5}{16}$	.750
1268	22568	2 $\frac{1}{8}$	8 $\frac{1}{8}$	3 $\frac{1}{2}$	$\frac{5}{16}$	.688
1272	22572	2 $\frac{1}{4}$	8 $\frac{1}{8}$	3 $\frac{1}{2}$	$\frac{5}{16}$	.688

## ALLOY BLACK ADJUSTABLE WRENCHES

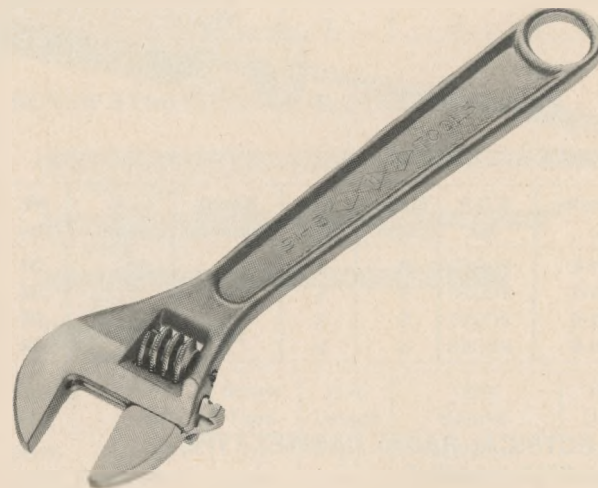
Identical in pattern to No. 91 series. With black finish.



Cat.No. In.	E.D.P. No.	MM	Jaw Open Max.  not less than	Thick. of Head Tip of Jaw  Min.	Thick. of Head Thickest Part  Min.	Wt. Ea. Lbs.
90-4	21040	101.6	.510	.136	.335	.109
90-6	21060	152.4	.760	.197	.383	.297
90-8	21080	203.2	.947	.203	.445	.437
90-10	21100	254.0	1.135	.331	.610	.813
90-12	21120	304.8	1.322	.379	.705	1.468
90-15	21150	381.0	1.698	.528	.949	2.875
90-18	21180	457.2	2.062	.630	1.156	3.625

## ALLOY PLATED ADJUSTABLE WRENCHES

Thin jaws to reach difficult spots. Drop forged from tough Alloy Steel to withstand rigorous breakage tests.



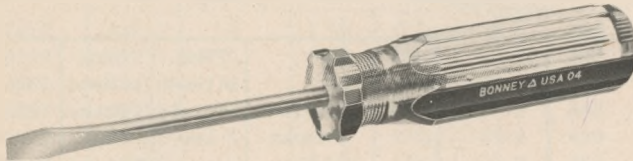
Cat.No. In.	E.D.P. No.	MM	Jaw Open Max. not less than	Thick. of Head Tip of Jaw Min.	Thick. of Head Thickest Part Min.	Wt. Ea. Lbs.
91-4	21041	101.6	.510	.136	.335	.109
91-6	21061	152.4	.760	.197	.383	.297
91-8	21081	203.2	.947	.203	.445	.437
91-10	21101	254.0	1.135	.331	.610	.813
91-12	21121	304.8	1.322	.379	.705	1.468
91-15	21151	381.0	1.698	.528	.949	2.875
91-18	21181	457.2	2.062	.630	1.156	3.625



# SCREWDRIVERS

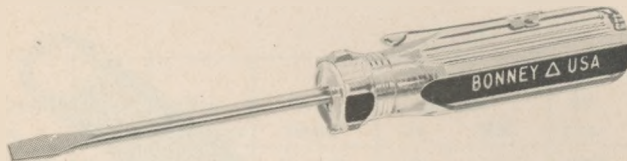
Bonney Screwdrivers are available in tough, shockproof, plastic. All handles are over-sized and shaped for comfortable, maximum torque grip. Blades are made from the finest alloy steel, accurately ground and tempered for maximum strength.

## STANDARD TIP, ROUND SHANK PLASTIC HANDLE



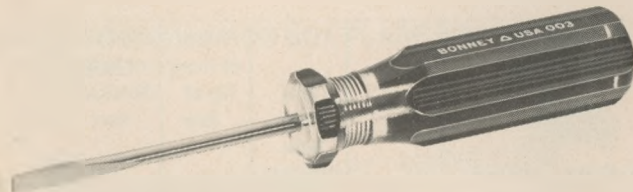
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
04	90004	4	1/4	1/4	8	.19
06	90006	6	5/16	5/16	10	.32
08	90008	8	3/8	3/8	13	.50
010	90010	10	3/8	3/8	15 1/2	.68
012	90012	12	3/8	3/8	17 1/2	.83

## ROUND SHANK, PLASTIC HANDLE CABINET TYPE



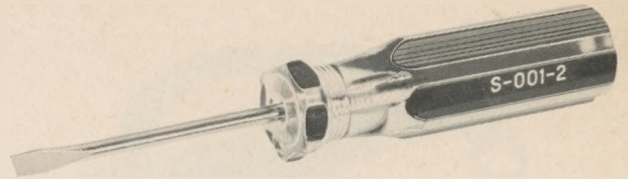
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
001-2	90022	2	1/8	1/8	4 3/8	.03
001-3	90023	3	1/8	1/8	6	.03
001-5	90025	5	1/8	1/8	8 1/8	.04
001-6	90026	6	1/8	1/8	9 1/8	.04

## ELECTRICAL-RADIO, CABINET TYPE PLASTIC HANDLE



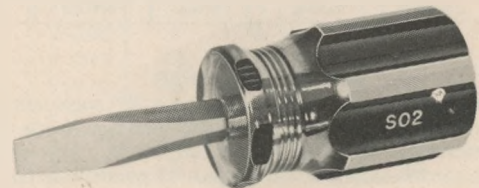
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
003	90043	3	1/16	3/16	6 1/8	.09
006	90046	6	1/8	1/8	9 1/2	.14
0010	90050	10	7/32	7/32	13 1/2	.17

## THIN BLADE, ELECTRICAL, PLASTIC HANDLE



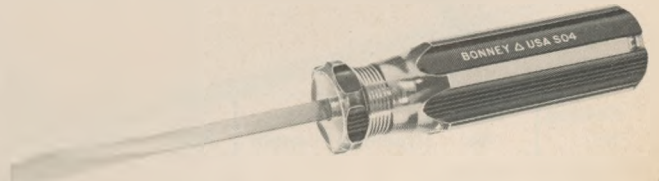
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
S-001-2	90032	2	1/8	1/8	4 1/4	.04
S-001-3	90033	3	1/8	1/8	5 1/2	.04

## HEAVY DUTY—STANDARD TIP, SQUARE SHANK PLASTIC HANDLE



Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
S01	90062	1 3/4	5/16	3/16	3 3/4	.12
S02	90061	1	7/32	7/32	3	.05

## REGULAR LENGTH—STANDARD TIP, SQUARE SHANK—PLASTIC HANDLE



Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
S03	90073	3	7/32	1/4	6 1/4	.12
S04	90074	4	5/16	7/32	7 3/4	.21
S05	90075	5	1/8	1/8	9	.30
S06	90076	6	1/8	1/8	10	.38
S08	90078	8	3/8	3/8	13	.57
S010	90080	10	3/8	3/8	15 1/2	.67
S012	90082	12	3/8	3/8	17 1/2	.80

### TOOL TIP:

All wrenches should be flush and fully seated when used.

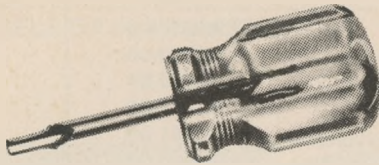
### TOOL TIP:

Only impact sockets and extensions should be used on impact wrenches.



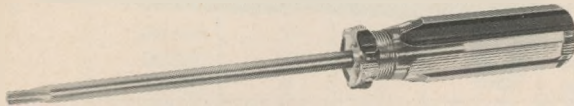
# SCREWDRIVERS AND STARTERS

## CLUTCH HEAD, BUTTERFLY STYLE TYPE G PLASTIC HANDLE STUBBY



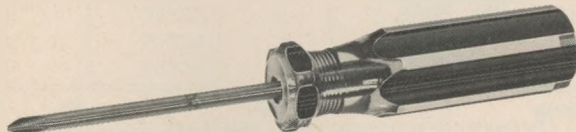
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
CL-13	90121	1 3/4	5/32	1/4	3 3/4	.13

## CLUTCH HEAD—PLASTIC HANDLE—REGULAR



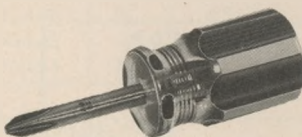
Catalog No.	E.D.P. No.	Blade Lngth.	Bit Size	Shank Diameter	O. A. Length	Wt. Lbs.
CL-3	90123	4	5/32	1/4	7 1/8	.16
CL-5	90125	6	1/4	5/16	10 1/2	.31
CL-7	90127	6	3/16	3/8	11	.45

## PHILLIPS BIT—PLASTIC HANDLE—REGULAR



Catalog No.	E.D.P. No.	Blade Lngth.	Bit Size	Shank Diameter	O. A. Length	Wt. Lbs.
CP-0	90140	2	0	5/16	5 1/4	.05
CP-1	90141	3	1	5/16	6 1/4	.08
CP-2	90142	4	2	1/4	7 3/4	.13
CP-3	90143	6	3	5/16	10 1/4	.38
CP-4	90144	8	4	3/8	12 1/2	.50

## PHILLIPS—PLASTIC HANDLE—STUBBY



Catalog No.	E.D.P. No.	Blade Lngth.	Bit Size	Shank Diameter	O. A. Length	Wt. Lbs.
CP-11	90151	1	1	5/16	3	.06
CP-12	90152	1 1/2	2	1/4	3 1/2	.08

## TOOL TIP:

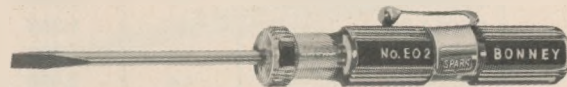
Keep electrical cords dry and replace frayed and broken wiring.

## SCREW STARTERS FOR PHILLIPS HEAD SCREWS



Catalog No.	E.D.P. No.	Screw Type	O.A. Length	Type Handle	Wt. Lbs.
SS3	91858	Phillips	3 1/4	Aluminum	.03
SS6	91859	Phillips	6 1/4	Aluminum	.06

## SPARK PLUG TEST WITH BULB AND POCKET CLIP



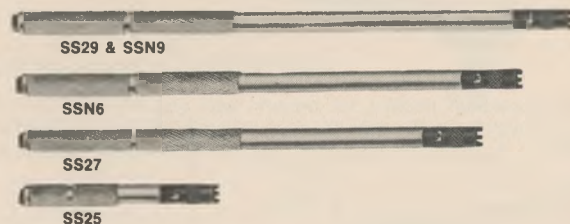
Catalog No.	E.D.P. No.	Blade Lngth.	Tip Size	Shank Diameter	O. A. Length	Wt. Lbs.
E02	90182	2 1/4	1/8	3/32	5 1/4	.06

## OFFSET SCREWDRIVERS



Catalog No.	E.D.P. No.	Tip Width	O.A. Length	Wt. Lbs.
0669	90185	1/4	4	.06
0670	90186	5/16	5	.13
0671	90187	3/8	6	.25

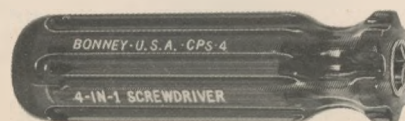
## SCREW STARTERS FOR SLOHEAD SCREWS



Catlog No.	E.D.P. No.	Screw Type	O.A. Length	Type Handle	Wt. Lbs.
SS25	91851	Slot	2 1/2	Aluminum	.02
SS27	91852	Slot	5	Aluminum	.04
SS29	91854	Slot	9	Aluminum	.06
SSN6	91863	Slot	6	Nylon	.03
SSN9	91864	Slot	9	Nylon	.05

## CPS-4 4 in 1 SCREWDRIVER E.D.P. No. 90153

4 in 1 Screwdrivers. This versatile screwdriver has four different interchangeable blades. 5/16" x No. 1 phillips 1/4 x No. 2 phillips.





# HAMMERS

## BALL PEIN

Drop forged from special hammer steel, specially heat treated and tempered. Wood Grain, fiberglass handles, full polish with octagons black baked enamel.



Catalog No.	E.D.P. No.	Weight of Head	Length	Weight Lbs. Complete
PF-4	90251-00	4 oz.	10 1/2"	.350
PF-8	90252-00	8 oz.	11"	.650
PF-12	90253-00	12 oz.	13"	1.075
PF-16	90254-00	16 oz.	13 1/2"	1.338
PF-24	90255-00	24 oz.	14"	1.800
PF-32	90256-00	32 oz.	14"	2.400

## 3 LB. CROSS PEIN

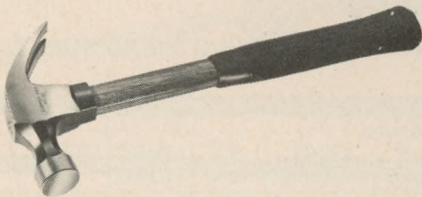
Head Length, 5".



Catalog No.	E.D.P. No.	Wt. Lbs.
PH-19	90258-00	3.412

## CLAW HAMMER

Drop forged hammer steel, full polish finish, curved design. O.A.L. 13 1/2".



Catalog No.	E.D.P. No.	Wt. Lbs.
PF-35	90259-00	1

## SOFT FACE HAMMERS

Tough, replaceable plastic tips, protects parts from damage.



Catalog No.	E.D.P. No.	Wt. Lbs.
PF-50	90260-00	.75
PF-52	90262-00	1
PF-54	90262-00	2

## SOFT FACE HAMMER—REPLACEABLE TIPS



M=Medium Tuff  
T=Tuff Green  
N=Nylon Medium Hard

## SOFT FACE HAMMER-REPLACEABLE TIPS (Cont.)

Extra Tip No.	E.D.P. No.	Diameter
PF-50TM	90260-05	1 1/8"
PF-50TT	90260-06	1 1/8"
PF-50TN	90260-07	1 1/8"
PF-52TM	90261-05	1 1/4"
PF-52TT	90261-06	1 1/4"
PF-52TN	90261-07	1 1/4"
PF-54TM	90262-05	1 1/2"
PF-54TT	90262-06	1 1/2"
PF-54TN	90262-07	1 1/2"

## SOFT BRONZE HAMMER

For driving easily damaged parts, head is made of soft bronze, polished and lacquered. Handle wood grain fiberglass. Length 12".



Catalog No.	E.D.P. No.	Wt. Lbs.
PH-32	90232	2.00

## RUBBER TIRE MALLET

Head molded of special tough resilient rubber. Also popular for body work as soft face bumping hammer. Head diameter 3" Head length 4" OAL 16".



Catalog No.	E.D.P. No.	Wt. Lbs.
PH-30	90230	1.88

## 2 WAY HAMMER

A dual use hammer having one head of tough drop forged steel, the other a replaceable molded resilient rubber. Extremely popular because of its tremendous striking power. Length 16".



Catalog No.	E.D.P. No.	Wt. Lbs.
PH-34	90234	2.38

## HAMMER HANDLES



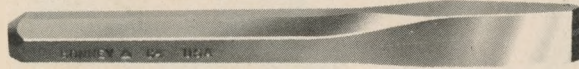
Part No.	E.D.P. No.	Head Size
PF-4H	90251-02	4 oz.
PF-8H	90252-02	8 oz.
PF-12H	90253-00	12 oz.
PF-16H	90254-02	16 oz.
PF-24H	90255-02	24 oz.
PF-32H	90256-02	32 oz.
PF-40H	90258-02	40 oz.



# PUNCHES/CHISELS AND PRY BARS

Bonney punches and chisels are forged from the finest alloy tool steel bars carefully heat treated. Differential tempering produces a softer striking end, and tougher workign tip. Nickel-chrome plated finished.

## COLD CHISELS OR FLAT CHISELS



Catalog No.	E.D.P. No.	Edge Width	Stock Size	O.A. Length	Wt. Lbs.
C1N	90312	1/4	1/4	4 3/4	.08
C1	90314	5/16	5/16	5	.10
C2N	90316	3/8	5/16	5	.11
C2A	90318	1/2	3/8	6	.18
C3	90320	5/8	1/2	6	.88
C4	90322	3/4	5/8	7	.55
C5	90324	7/8	3/4	7 1/2	.88
C6	90326	1	7/8	8	1.22

## EXTRA LONG COLD FLAT CHISELS



Catalog No.	E.D.P. No.	Edge Width	Stock Size	O.A. Length	Wt. Lbs.
C3L	90332	5/8	1/2	12	.88
C4L	90334	3/4	5/8	12	1.25
C6L	90336	1	7/8	12	2.25

## PIN PUNCHES—SHORT AND REGULAR LENGTH



Catalog No.	E.D.P. No.	Point Dia.	Point Length	Stock Size	O.A. Length	Wt. Lbs.
C28-7	90422	3/32	1 1/2	5/16	6	.10
C28	90424	1/8	1 1/2	5/16	6	.10
C29-5	90426	5/32	1 1/2	5/16	6	.11
C29	90428	3/16	2	3/8	6 1/2	.16
C29-7	90430	7/32	2 1/2	3/8	7	.16
C30	90432	1/4	2 3/4	3/8	7	.17
C30-10	90434	5/16	3	7/16	6 1/8	.31

## LONG TAPERED PUNCHES



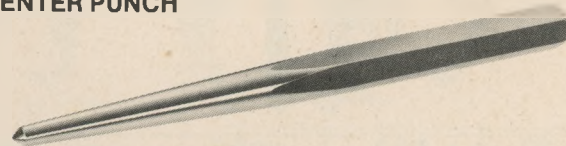
Catalog No.	E.D.P. No.	Point Dia.	Point Length	Stock Size	O.A. Length	Wt. Lbs.
C25-4	90482	1/8	3 1/2	3/8	8	.20
C25	90484	5/32	4	1/2	8	.36
C26	90486	3/16	4	1/2	9	.50
C27N	90488	1/4	4	5/8	11	.75

## PRICK PUNCH



Catalog No.	E.D.P. No.	Point Dia.	Point Length	Stock Size	O.A. Length	Wt. Lbs.
C32	90570	—	—	3/8	5	.25

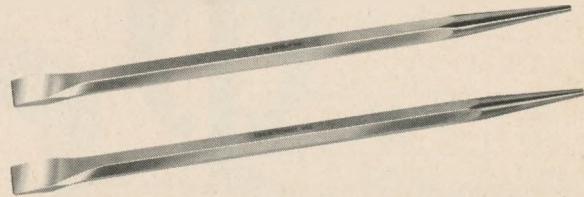
## CENTER PUNCH



Catalog No.	E.D.P. No.	Point Dia.	Point Length	Stock Size	O.A. Length	Wt. Lbs.
C34	90575	7/32	—	3/8	4 1/2	.12

## JIMMY PRY BARS

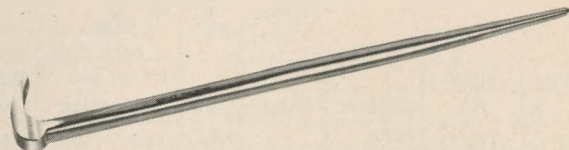
Expertly forged and heat treated for uniform hardness.



Catalog No.	E.D.P. No.	Point Dia.	Point Length	Stock Size	O.A. Length	Wt. Lbs.
C38	90600	5/32	7/8	5/8	16	1.16
C38-8	90601	1/4	1 1/8	3/4	20	2.15

## ROLLING HEAD PINCH BAR

Expertly forged and heat treated for uniform hardness. Specially designed for close quarter work with tapered end for aligning work. Finished in nickel chrome plate—head and end polished.



Catalog No.	E.D.P. No.	Cut	Stock Dia.	O.A. Length	Wt. Lbs.
C39	90604	—	9/16	15	.98

## TOOL TIP:

Do not hit one hammer with another.

## TOOL TIP:

Avoid excessive heat on pliers and all other tools.

## TOOL TIP:

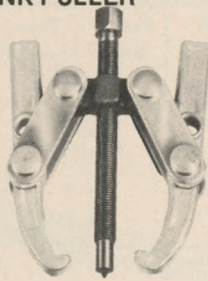
Regular wrenches are not made to be struck with hammers.



# PULLERS

These Bonney Pullers are designed with grooved push pins that slip *into the link assembly and lock in position by a single spring steel* retainer plate that is *pivoted to one link side members. Jaws are adjusted or reversed in seconds.* Buttruss threads for longer wear. All parts are interchangeable.

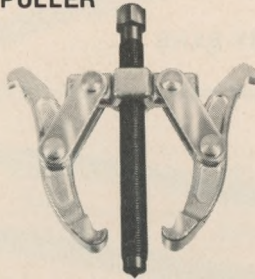
## "QUICK-LOCK" LINK PULLER



Catalog No.	E.D.P. No.	Spread	Reach	Jaw Description	Wt. Lbs.
*P832	91332	4	3½	Straight, 2 Pos. Adj.	.88

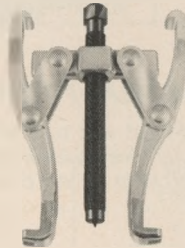
\* Does not have buttruss threads.

## "QUICK-LOCK" LINK PULLER



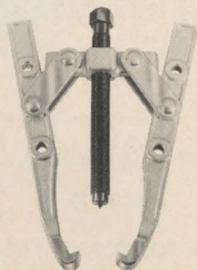
Catalog No.	E.D.P. No.	Spread	Reach	Jaw Description	Wt. Lbs.
P830	91330	6	3½	Rev., 1 wd., 1 nar.	1.88

## "QUICK-LOCK" LINK PULLER



Catalog No.	E.D.P. No.	Spread	Reach	Jaw Description	Wt. Lbs.
P831	91331	8	5½	Rev., 1 pln., 1 slot.	3.69

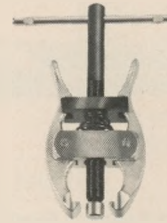
## "QUICK-LOCK" LINK PULLER



Catalog No.	E.D.P. No.	Spread	Reach	Jaw Description	Wt. Lbs.
P833	91333	10	9	Straight, 3 Pos. Adj.	4.44

## BATTERY TERMINAL PULLER AND GENERATOR BEARING PULLER

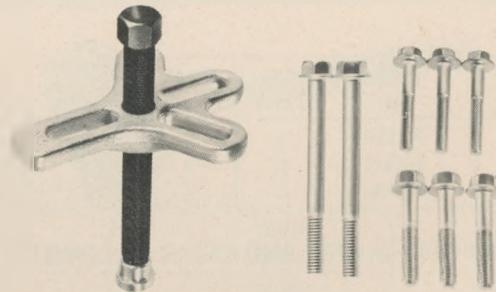
Designed to remove the tightest terminals without damage to the battery case or post. The swivel is designed so that it can be used also as a generator bearing and magneto gear puller. Range ¾" to 1 ¾".



Catalog No.	E.D.P. No.	Wt. Lbs.
P335	91329	.563

## HARMONIC BALANCER PULLER

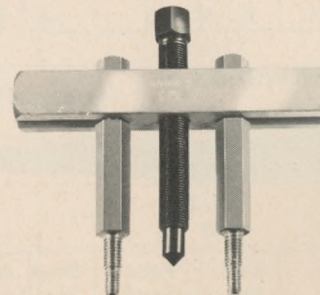
Designed to pull balancers, vibration dampers, pulleys, or any gear with tapped holes. The four slots in the yoke allow the use of this tool in either two or three hole applications. The floating swivel prevents damage to shaft ends. Included are the necessary side screws—(3) ¾"-24, (3) ¾"-18, (2) ¾"-16.



Catalog No.	E.D.P. No.	Wt. Lbs.
P331	91363	2.500

## TIMING GEAR PULLER

Designed to remove timing gears, pulleys and other units with tapped holes. 6½" slotted cross-arm for variable center to center distances. Dual threaded side screws, ¾"-16 and ¾"-18 x 6½" long. Nickel chrome finish.



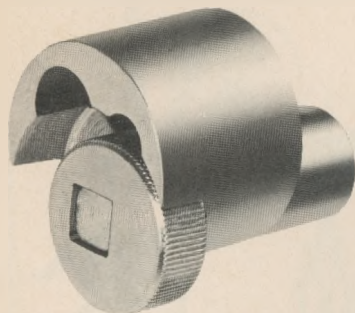
Catalog No.	E.D.P. No.	Wt. Lbs.
P861	91361	2.50



# PULLERS

## ECCENTRIC STUD PULLER

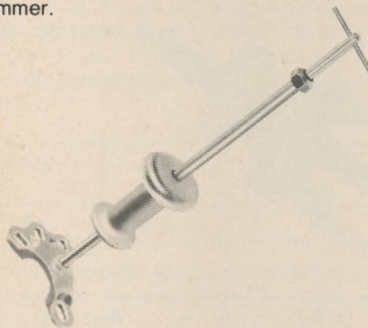
Pinned eccentric is reversible for additional life. 1/2" square drive.



Catalog No.	E.D.P. No.	Wt. Lbs.
2591A	91320	1.131

## FLANGE TYPE AXLE PULLER

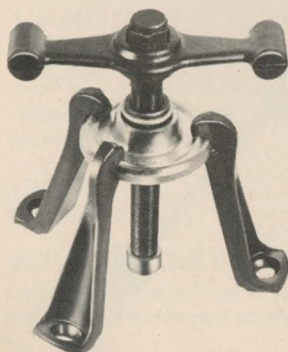
The four slots in the adapter allow this tool to be used on either 4, 5, or 6 bolt or stud designs. Has extra heavy 5 1/4 pound sliding hammer.



Catalog No.	E.D.P. No.	Wt. Lbs.
P337	91377	10.00

## UNIVERSAL WHEEL HUB PULLER

Sliding puller arms quickly and easily adjust to fit any type hub. Because of unique arm suspension a straight pull is made on all size bolt circles up to and including 7 1/2" in diameter.

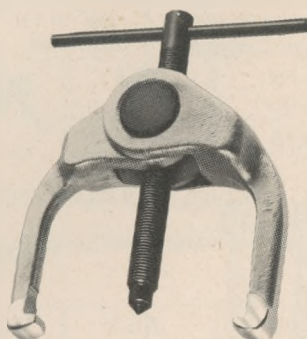


## PULLER SET

Catalog No.	E.D.P. No.	Wt. Lbs.
P325CH	91326	11.46
P325H	91325	Puller only

## TWO ARM GEAR PULLER

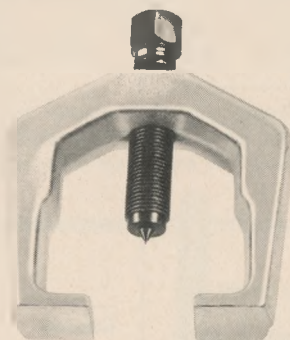
Maximum reach 2 3/4", spread 3 1/2".



Catalog No.	E.D.P. No.	Wt. Lbs.
P305	91305	1.625

## PITMAN ARM PULLER

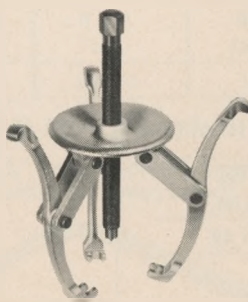
The forged alloy yoke and heavy-duty forcing screw for the most severe requirements.



Catalog No.	E.D.P. No.	Wt. Lbs.
P329	91309	1.25

## CONVERTIBLE THREE JAW PULLER

Designed for quick changeover to a two or three jaw puller. The reversible jaws have a maximum reach of 3 3/4" in depth and up to 5 1/2" spread.



Catalog No.	E.D.P. No.	Wt. Lbs.
PO11	91311	2.562
PO11L	91310	Long Jaws

## CONVERTIBLE THREE JAW PULLER (HEAVY DUTY)

Slotted reversible jaws have a maximum reach of 5 1/2" and will spread to 8".



Catalog No.	E.D.P. No.	Wt. Lbs.
PO12	91312	6.000

## HEAVY DUTY THREE JAW CONVERTIBLE PULLER (LONG JAWS) (Not Illustrated)

The same as PO12 except jaws have a maximum reach of 8 1/2" depth and spread to 10 inches.

Catalog No.	E.D.P. No.	Wt. Lbs.
PO12L	91313	7.000

## SHOCK LINK AND STABILIZER LINK SEPARATOR

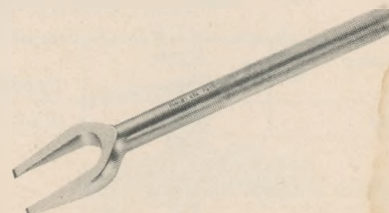
This forked wedge separator is used to free the tapered links of the shock absorber assembly or the stabilizer assembly from their mountings. Jaw opening: 3/4". Length: 16".



Catalog No.	E.D.P. No.	Wt. Lbs.
P317	91317	2.250

## PITMAN ARM SEPARATOR

Jaw opening: 1 1/8", Length: 11 1/4".



Catalog No.	E.D.P. No.	Wt. Lbs.
P319	91319	1.625

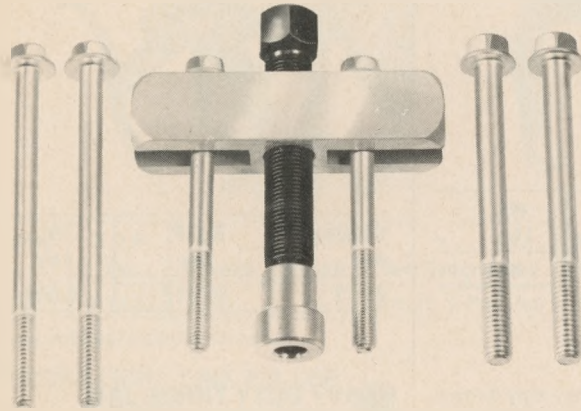
NOTE: FOR WARRANTY SEE PAGE 95.



# PULLERS

## STEERING WHEEL PULLER

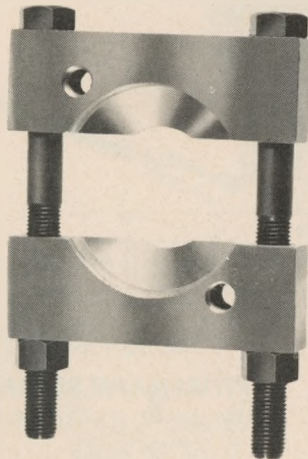
Designed to pull steering wheels on most late model automobiles. Includes three sets of side screws,  $\frac{3}{8}$ -16,  $\frac{3}{8}$ -18, and  $\frac{3}{8}$ -24. The floating swivel is recessed so as not to damage the spring tip connected to the horn wires. Slotted cross-arm, 4" long. Bright Cadmium plated.



Catalog No.	E.D.P. No.	Wt. Lbs.
P311	91335	2.250

## BEARING SPLITTER

Designed for removing generator parts, bearings, bearing cones and other similar parts where most puller jaws will not reach. The flush, knife edge opening will get behind work close to a housing, or close together parts requiring wedging apart. Designed for use with Bonney jaw pullers or cross-arm pullers.



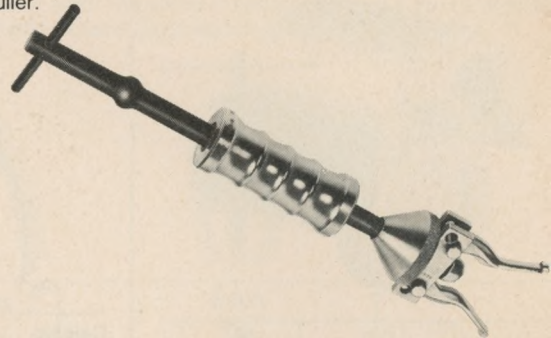
Catalog No.	E.D.P. No.	Capacity	Wt. Lbs.
P333	91372	2" O.D.	1.38

## LARGE BEARING SPLITTER

Catalog No.	E.D.P. No.	Capacity	Wt. Lbs.
P334	91373	4" O.D.	6.50

## PILOT BEARING PULLER

2 jaw puller for internal pulling. Pulls in and through blind holes. Removes flywheel pilot and other blind recessed bearings. Capacity is  $\frac{1}{2}$ " to 1  $\frac{1}{2}$ ". I.D. shaft is 14" long and interchangeable with shaft of 866 puller.

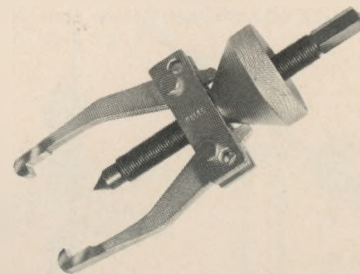


Catalog No.	E.D.P. No.	Wt. Lbs.
P867	91367	5.06

## TWO-JAW PULLER

A general Automotive external gear puller

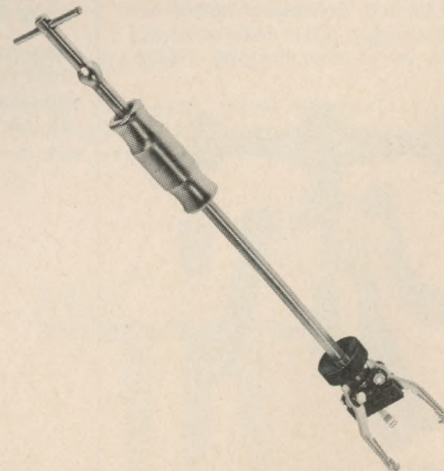
1-P866B, 2-P866J, 1-P866N, 1-P868S, 1-P868T.



Catalog No.	E.D.P. No.	Wt. Lbs.
P858	91358	1.91

## SHAFT HAMMER PULLER

Has reversible jaws for either internal or external pulling. jaws are adjustable for external pulling up to 5" O.D., and for internal pulling from 1  $\frac{1}{4}$ " to 6" I.D. All alloy steel construction chrome plated. Shaft is 24" long.

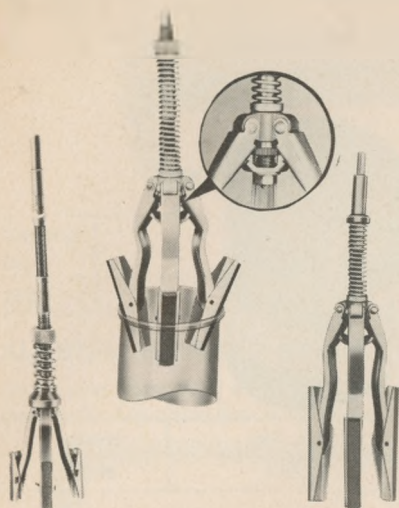


Catalog No.	E.D.P. No.	Wt. Lbs.
P866X	91380	7.06



# BRAKE SERVICE

## DEGLAZING BRAKE CYLINDER HONE



RC-150

RC-160

Catalog No.	E.D.P. No.	Wt. Lbs.
RC150	92230	.221

Fully adjustable spring tension for all cylinders 2" to 5 1/4" diameter. Furnished with 3" long medium grit stones. Drive stud diameter 2.60".

Catalog No.	E.D.P. No.	Wt. Lbs.
RC160	92240	1

Furnished with 4" long, medium grit stones. For cylinder diameter 2" to 7 1/2". Drive stud diameter 2.60".

Catalog No.	E.D.P. No.	Wt. Lbs.
RC170	92220	1.089

## REPLACEMENT STONES SETS

Catalog No.	E.D.P. No.	Stone Length	Type Grit
RC151	92235	1 1/2"	M.
RC152	92236	1 1/2"	F.
RC161	92216	3"	M.
RC162	92215	3"	F.
RC171	92223	4"	M.
RC172	92226	4"	F.

Neither stones, nor flexible drive is replaceable for damage of any kind.

F.—Fine—400 grit.

M.—Medium—280 grit.

## STAR NUT ADJUSTING SPOON

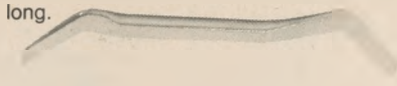
Notched design for clearance on G.M. compacts. Services standard Bendix brakes also. 9 3/8" long.



Catalog No.	E.D.P. No.	Wt. Lbs.
2568	92150	.313

## STANDARD ADJUSTING SPOON

For most brakes, except Chevrolet. 7 1/2" long.



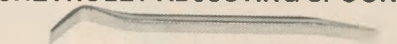
Catalog No.	E.D.P. No.	Wt. Lbs.
2567	92151	.213

## BENDIX BRAKE ADJUSTER



Catalog No.	E.D.P. No.	Wt. Lbs.
2566	92152	.300

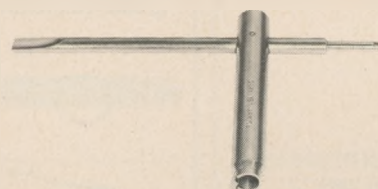
## CHEVROLET ADJUSTING SPOON



Catalog No.	E.D.P. No.	Wt. Lbs.
2566A	92153	.144

## THREE-WAY BRAKE SPRING TOOL

One end removes Bendix brake shoe springs. Second end replaces springs. Third end is anti-rattle spring tool with slotted tip.



Catalog No.	E.D.P. No.	Wt. Lbs.
2570	29964	.63

## BRAKE SPRING REMOVAL AND REPLACEMENT TOOL

With Bendix type remover socket.



Catalog No.	E.D.P. No.	Wt. Lbs.
2574	92161	.4

## BRAKE BLEEDER WRENCH

3/8" and 1/4" vented sockets permits brake bleeding without removing wrench.



Catalog No.	E.D.P. No.	Wt. Lbs.
2571	29970	.25

NOTE: FOR WARRANTY SEE PAGE 95.

## RAMBLER BRAKE BLEEDER WRENCH

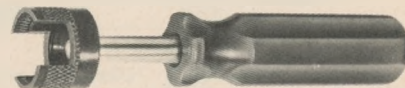
1/4" hex opening fits most compacts. 5" long.



Catalog No.	E.D.P. No.	Wt. Lbs.
2569	24921	.063

## BRAKE SHOE RETAINER TOOL

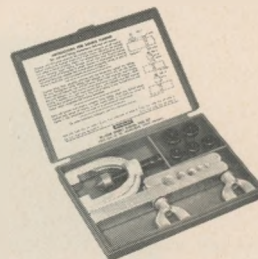
Installs and removes coil and hairpin type.



Catalog No.	E.D.P. No.	Wt. Lbs.
2575	92165	.187

## DOUBLE FLARING TOOL SET

Designed to produce 45° double flares on 3/16", 1/4", 5/16", 3/8" and 1/2" O.D. soft steel tubing up to .040 wall thickness.



Catalog No.	E.D.P. No.	Wt. Lbs.
RF100B	84905	3.250

## TUBE CUTTER

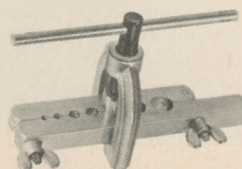
Designed to cut tubing from 1/8" to 1" O.D.



Catalog No.	E.D.P. No.	Wt. Lbs.
RF59A	92066	.588

## FLARING TOOL

Capacity 3/16" to 1/2" wide, 6 1/2" long.



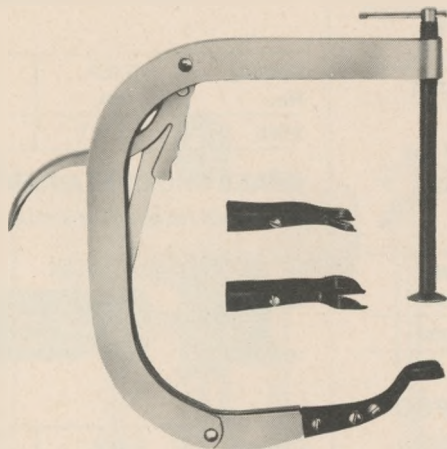
Catalog No.	E.D.P. No.	Wt. Lbs.
RF46	92046	2.038



# ENGINE SERVICE

## "C" CLAMP UNIVERSAL TYPE VALVE LIFTER

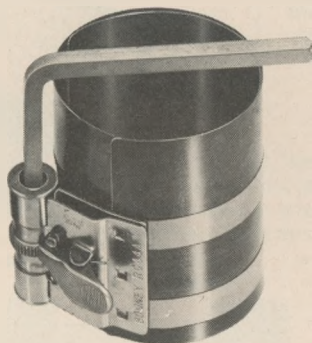
Designed to fit springs 1" through 2½" diameter. For L-head and O.H.V. Engines. Height: 10½", Width: 9½".



Catalog No.	E.D.P. No.	Wt. Lbs.
RC110	91910	7.00

## PISTON RING COMPRESSOR

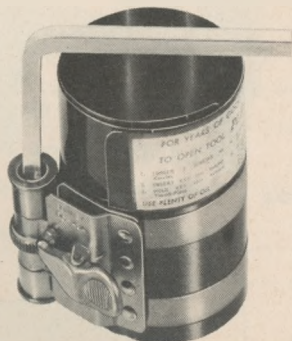
Capacity 1½" to 3" diameter. Width 2". Friction brake single band.



Catalog No.	E.D.P. No.	Wt. Lbs.
RC41	92341	.310

## RING COMPRESSOR

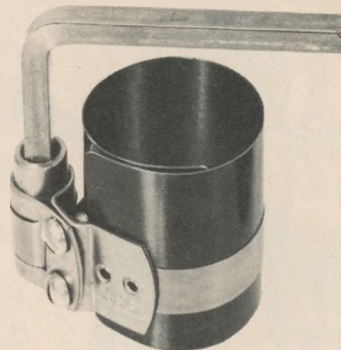
Capacity 2½"-5". Width 3½", Ratchet Brake, Double band.



Catalog No.	E.D.P. No.	Wt. Lbs.
RC43A	92343	.75

## TRUCK RING COMPRESSOR

Capacity 3½"-7", Width 3½", Ratchet Brake, Double band.



Catalog No.	E.D.P. No.	Wt. Ea.
RC44A	92344	.82 lbs.

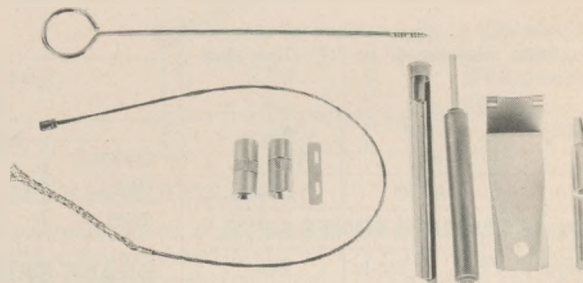
## TRUCK RING COMPRESSOR

Capacity 3½"-7", Width 6½", Ratchet Brake, 4 Bands.

Catalog No.	E.D.P. No.	Wt. Ea.
RC45A	92345	1.64 lbs.

## UPPER MAIN BEARING SEAL TOOL

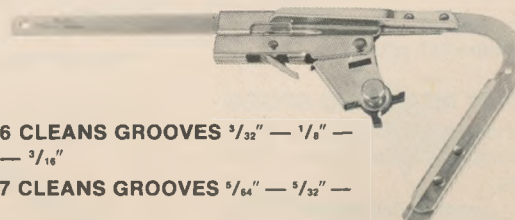
17 Piece set removes and installs seal without dropping crankshaft. This set includes such small tools and accessories as are necessary to seal removal and replacement.



Catalog No.	E.D.P. No.	Wt. Lbs.
610	92313	.48

## PISTON RING GROOVE CLEANERS

For piston diameters 2 thru 5".  
Four blade cutter cleans grooves ⅜"-½"-⅝". Length 11¼".



RC46 CLEANS GROOVES ⅜" — ½" — ⅝"  
RC47 CLEANS GROOVES ⅝" — ¾" — 1"

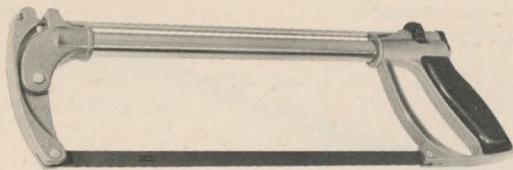
Catalog No.	E.D.P. No.	Wt. Lbs.
RC46	92303	.52
RC47	92304	.52



# GENERAL SERVICE

## DELUXE HACKSAW FRAME

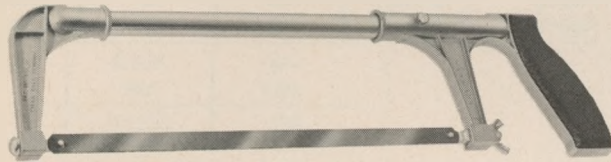
Extra blade storage in tube. Pistol-grip handle, chrome and enamel frame. Uses 12" blade only.



Catalog No.	E.D.P. No.	Wt. Lbs.
2623	91423	1.50

## ALL STEEL HACKSAW FRAME

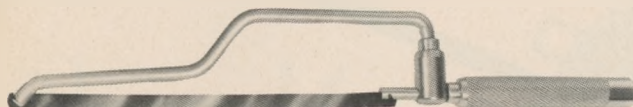
Heavy cold rolled steel frame with full formed, nonbreakable pistol grip handle. Adjustable from 8-12". Length. 16".



Catalog No.	E.D.P. No.	Wt. Lbs.
2628	91428	1.375

## MIDGET (CLOSE QUARTER) HACKSAW FRAME

Designed to fit in confined areas. Handles only 6" blades.



Catalog No.	E.D.P. No.	Wt. Lbs.
2630	91406	.296 lbs.
2630B	91493	Replacement Blades, pkg. of 10

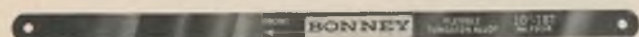
## THREAD RESTORER FILES



Catalog No.	E.D.P. No.	Thread Size	Wt. Lbs.
TR1	91871	11, 12, 13, 14, 16, 18, 20 & 24	.34

Catalog No.	E.D.P. No.	Thread Size	Wt. Lbs.
TR2	91872	9, 10, 12, 16, 20, 27 & 28	.34

## F SERIES, BACK HARDENED BLADES



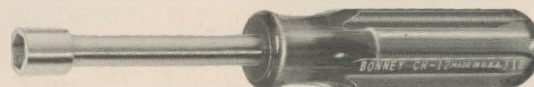
Catalog No.	E.D.P. No.	O.A. Length	Teeth Per Inch	Wt. Pkg. (lbs.)
F1018	91451	10	18	.380
F1024	91452	10	24	.380
F1032	91453	10	32	.380
F1218	91461	12	18	.450
F1224	91462	12	24	.450
F1232	91463	12	32	.450

## HS SERIES "HI SPEED" BLADES (Not Illustrated)

HS1018	91471	10	18	.380
HS1024	91472	10	24	.380
HS1032	91473	10	32	.380
HS1218	91481	12	18	.450
HS1224	91482	12	24	.450
HS1232	91483	12	32	.450

## SPINNER WRENCHES

Bonney Spinner Wrenches incorporate socket ends ranging from 3/16" to 1/2" openings, and plastic screwdriver color coded handles for tightening and loosening nuts and bolts with great speed.



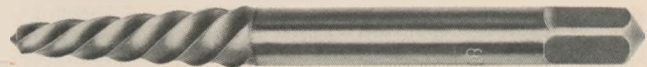
Catalog No.	E.D.P. No.	Opening	Handle Color	O.A. Handle In. MM	Wt. Lbs.
CH06	29306	3/16	Black	6 152.4	.147
CH08	29308	1/4	Red	6 152.4	.131
CH10	29310	5/16	Amber	6 152.4	.156
CH11	29311	11/32	Green	6 155.6	.169
CH12	29312	3/8	Blue	6 155.6	.153
CH14	29314	7/16	Brown	6 155.6	.216
CH16	29316	1/2	Red	6 155.6	.213
CH18	29318	9/16	Orange	6 155.6	.216

## CAT. NO. CSN-10 EDP NO. 84910 NUT AND SCREWDRIVER SET



NUTDRIVER KIT ten piece Nut and Screwdriver set. Set contains 3/16", 1/4" Flat Tip Screwdriver, No. 1 & No. 2 Phillips, 3/16", 1/4", 5/16", 11/32", 3/4" Nutdrivers with master handle. All parts are color coded for easy identification.

## SCREW EXTRACTORS



Catalog No.	E.D.P. No.	O.A. Length	Size Drill to use	Screw and Bolt Sizes	Wt. Lbs.
SE1	91821	2	5/64	3/16-1/4	.009
SE2	91822	2 3/8	7/64	1/4-5/16	.015
SE3	91823	2 1/16	9/32	5/16-7/16	.031
SE4	91824	3	1/4	7/16-9/16	.059
SE5	91825	3 3/8	17/64	9/16-3/4	.097
SE6	91826	3 3/4	13/32	3/4-1	.200

## 6 PIECE SCREW EXTRACTOR SET



Catalog No.	E.D.P. No.	Wt. Lbs.
SER	84907	.438

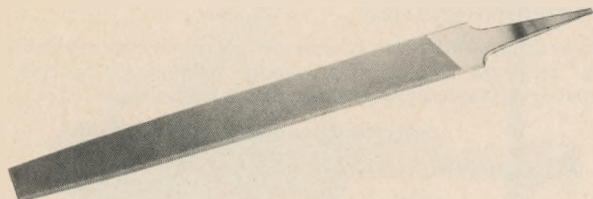
NOTE: FOR WARRANTY SEE PAGE 95.



# FILES

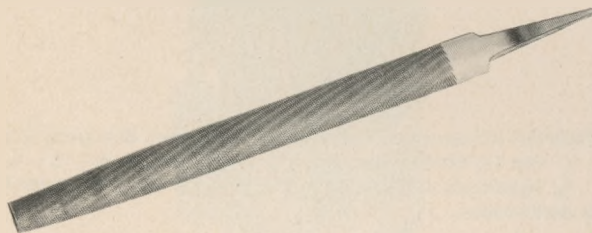
Bonney files are the finest money can buy. Made from specially refined high carbon file steel, they have deep cut, sharp teeth designed for rapid removal of metal. They are self-cleaning to avoid marring of work and of uniform width and thickness.

## MILL (Bastard)



Catalog No.	E.D.P. No.	O.A. Length	Package	Wt. Lbs.
FMB6	91513	6	12	1.375
FMB8	91514	8	12	2.062
FMB10	91515	10	12	5.687
FMB12	91516	12	6	4.875
FMB14	91517	14	6	7.312

## HALF ROUND (Bastard)



Catalog No.	E.D.P. No.	O.A. Length	Package	Wt. Lbs.
FHB8	91524	8	12	3.562
FHB10	91525	10	12	6.437
FHB12	91526	12	6	5.625
FHB14	91527	14	6	8.625

## POINT FILE

For ignition, distributor, and spark plug points. Double cut for fast, smooth cut. Length 5 inches.



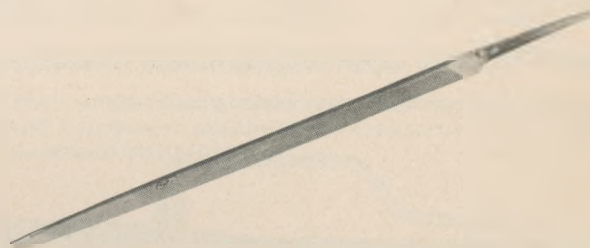
Catalog No.	E.D.P. No.	Wt. Lbs.
FIP	91552	.312

## ROUND (Bastard)



Catalog No.	E.D.P. No.	O.A. Length	Package	Wt. Lbs.
FRB6	91533	6	12	.750
FRB8	91534	8	12	1.687
FRB10	91535	10	12	3.250
FRB12	91536	12	6	3.562

## EXTRA SLIM TAPER



Catalog No.	E.D.P. No.	O.A. Length	Package	Wt. Lbs.
FXST6	91543	6	12	1.125
FXST8	91544	8	12	2.750

## WOOD HANDLES

Bonney hardwood file handles are provided in the three popular sizes to cover the full range of file lengths.



Catalog No.	E.D.P. No.	Description	Wt. Lbs.
FH2	91592	Small for 5" and 6" files	.125
FH3	91593	Medium for 8" and 10" files	.125
FH4	91594	Large for 12" and 16" files	.187

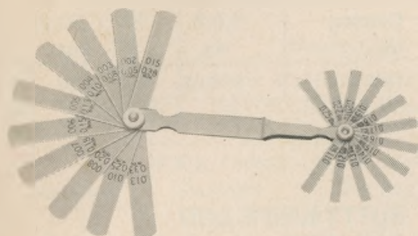
NOTE: FOR WARRANTY SEE PAGE 95.



# FEELER GAUGES

## COMBINATION GAUGE FUEL MARKING Inches/mm

Contains ten 3" x 1/2" blades on one end of the following thicknesses: .002 thru .015; and twelve 1 1/4" x 1/4" blades on the other end of the following thicknesses: .011 thru .020/.5080.



Catalog No.	E.D.P. No.	Wt. Lbs.
K51	91251	.750

## IGNITION GAUGE

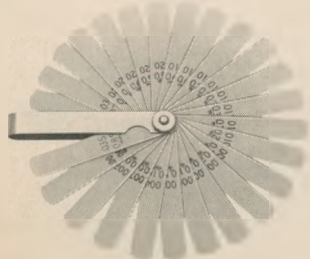
Contains twelve 1 1/4" x 1/4" blades of the following thicknesses: .011 thru .022/.5588.



Catalog No.	E.D.P. No.	Wt. Lbs.
K52	91252	.373

## UNIVERSAL MASTER GAUGE

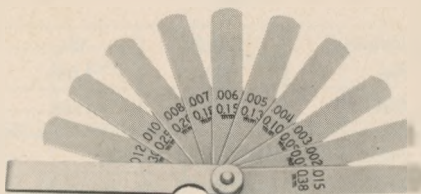
Contains twenty-five 3 1/8" x 1/2" blades of the following thicknesses: .0015 thru .035.



Catalog No.	E.D.P. No.	Wt. Lbs.
K53	91253	.1250

## STANDARD FEELER GAUGE

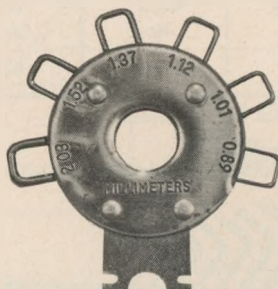
Contains ten 3 1/8" x 1/2" blades of the following thicknesses: .022 through .015.



Catalog No.	E.D.P. No.	Wt. Lbs.
K54	91254	.500

## SPARK PLUG GAUGE

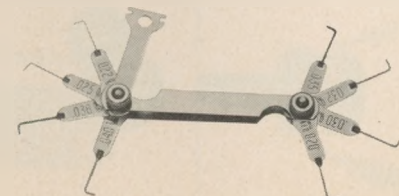
High energy round wire, spark plug gauge six wire sizes in thousandths and metric equivalents. .035, .040, .054, .060, .080, plus electrode adjusting tool.



Catalog No.	E.D.P. No.	Wt. Lbs.
K67	91270	.063

## SPARK PLUG WIRE GAUGE

Contains one electrode bender and eight wire gauges of the following thicknesses: .022 thru .035.

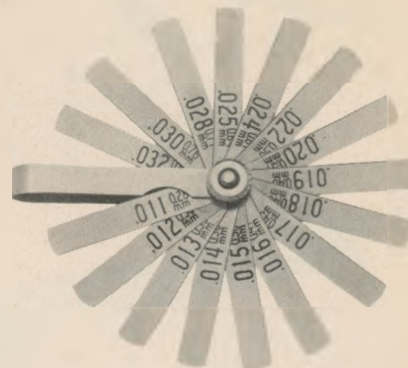


Catalog No.	E.D.P. No.	Wt. Lbs.
K57	91257	.468

NOTE: FOR WARRANTY SEE PAGE 95.

## MASTER IGNITION GAUGE

Serves domestic and foreign cars. Contains sixteen 1 1/4" x 1/4" blades of the following thicknesses: .011 thru .028.



Catalog No.	E.D.P. No.	Wt. Lbs.
K63	91263	.373

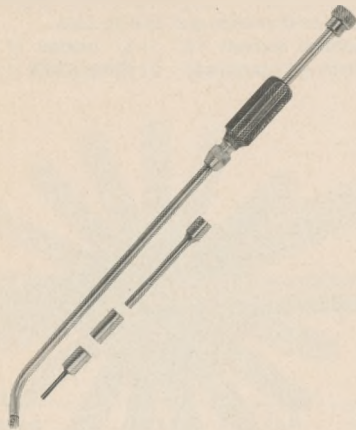
## FEELER GAUGE BLADES 12" EXTENSION

Catalog No.	E.D.P. No.	Thickness Inches/M.M.	Wt. Lbs.
KL0015	91201-01	.0015/.0381	.015
KL002	91202-01	.002/.0508	.032
KL003	91203-01	.003/.0762	.032
KL004	91204-01	.004/.1016	.047
KL005	91205-01	.005/.1270	.032
KL006	91206-01	.006/.1524	.032
KL007	91207-01	.007/.1778	.080
KL008	91208-01	.008/.2032	.094
KL009	91209-01	.009/.2286	.094
KL010	91210-01	.010/.2540	.102
KL011	91211-01	.011/.2794	.125
KL012	91212-01	.012/.3048	.125
KL013	91213-01	.013/.3302	.140
KL014	91214-01	.014/.3556	.157
KL015	91215-01	.015/.3810	.157
KL016	91216-01	.016/.4064	.157
KL017	91217-01	.017/.4318	.157
KL018	91218-01	.018/.4572	.189
KL019	91219-01	.019/.4826	.189
KL020	91220-01	.020/.5080	.204
KL021	91221-01	.021/.5334	.221
KL022	91222-01	.022/.5588	.221
KL024	91224-01	.024/.6096	.250
KL025	91225-01	.025/.6350	.250
KL026	91226-01	.026/.6604	.265
KL028	91228-01	.028/.7112	.282
KL032	91232-01	.032/.8128	.328
KL035	91235-01	.035/.8890	.345
KL040	91240-01	.040/1.016	.407



# GENERAL SERVICE

## CARBURETOR AND DISTRIBUTOR ADJUSTING SET



Catalog No.	E.D.P. No.	Wt. Lbs.
2125	92306	.642

## HANDLE

1/4" square drive with adjustable locking handle. 16" length.

Catalog No.	E.D.P. No.	Wt. Lbs.
2126	92307	.500

## SOCKET

Self-locating idle air screwdriver socket.

Catalog No.	E.D.P. No.	Wt. Lbs.
2127	92308	.032

## SCREWDRIVER

Holley idle adjustment screwdriver, self-locating.

Catalog No.	E.D.P. No.	Wt. Lbs.
2128	92309	.063

## DELCO HEX BIT

For setting points in Delco distributors.

Catalog No.	E.D.P. No.	Wt. Lbs.
2129	92310	.047

## UNIVERSAL OIL FILTER REMOVING AND REPLACING TOOL

Cam acting. Eliminates clearance problems. 3/8" square drive.



Catalog No.	E.D.P. No.	Wt. Lbs.
600	92301	.375

## NEON TUBE SPARK TESTER



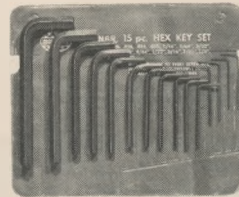
Catalog No.	E.D.P. No.	Wt. Lbs.
E06	92302	.160

## HEX KEY WRENCH SETS

Precision manufactured for accurate fit on Hex Socket Head Screws—Regular and Long Style.

### 15 PIECE SET REGULAR

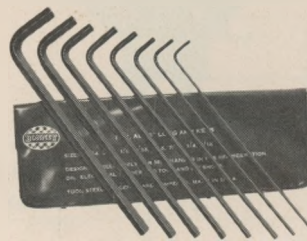
Regular sizes .028 thru 3/8".  
Wt.: .625 lbs. Packaged in red vinyl pouch.  
This set fits all screws of the new 1960 series.  
Socket screws and set screws in sizes No. 0 thru 3/8".



Catalog No.	E.D.P. No.	Wt. Lbs.
N6R	82006	.625

### 8 PIECE SET LONG

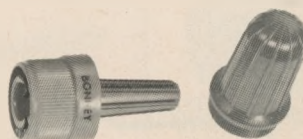
Long, 3/4 thru 3/8".  
Wt.: .562 lbs. Packaged in red vinyl pouch.



Catalog No.	E.D.P. No.	Wt. Lbs.
N7R	82007	.562

## BATTERY TERMINAL BRUSH

Internal and external wire brushes, clean battery post and cable terminal surfaces.



Catalog No.	E.D.P. No.	Wt. Lbs.
IG300	92100	.250

NOTE: FOR WARRANTY SEE PAGE 95.

## CARBON SCRAPER



Catalog No.	E.D.P. No.	Wt. Lbs.
198	91648	.27

## PUTTY KNIFE AND SCRAPER



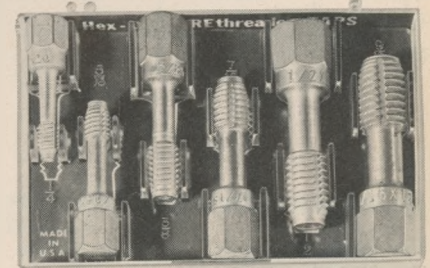
### FLEX-BLADE

Catalog No.	E.D.P. No.	Wt. Lbs.
197	91641	.16

### STIFF BLADE

Catalog No.	E.D.P. No.	Wt. Lbs.
196	91647	.19

## RESTORER TAP SETS



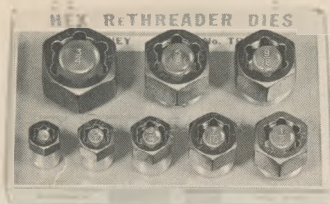
Cat. No.	E.D.P. No.	Description	Wt. Lbs.
803B	84403	Set of 6 N.F. taps	.88
804B	84404	Set of 6 N.C. taps	.88

Set No. 804B (NC) consists of: 1/4-20, 3/8-18, 1/2-14, 3/4-12, 1-10, 1 1/2-8.  
Set No. 803B (NF) consists of: 1/4-28, 3/8-24, 1/2-20, 3/4-18, 1-14, 1 1/2-10.



# GENERAL SERVICE

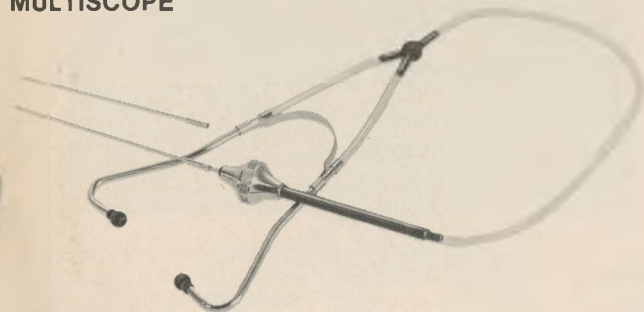
## THREAD RESTORER SETS



Catalog No.	E.D.P. No.	Description	Wt. Lbs.
TR7	84408	Set of 8 SAE dies listed below	.403
TR8	84406	Set of 8 USS dies listed below	.419

Bolt Diameter	S.A.E. Thread Per Inch	U.S.S. Thread Per Inch	Hexagon Size
1/4	28	20	7/16
5/16	24	18	1/2
3/8	24	16	9/16
7/16	20	14	5/8
1/2	20	13	3/4
9/16	18	12	7/8
5/8	18	11	1 1/16
3/4	16	10	1 1/8

## MULTISCOPE



Catalog No.	E.D.P. No.	Wt. Lbs.
MSB	92315	.43

## PUSH-PULL RULE

Flexible steel blades with legible black numerals on white background.



Catalog No.	E.D.P. No.	Size	Wt. Lbs.
194-L	91610-10	10 Ft.	.375

## SHOP KNIFE

New multi-purpose has retractable blade with two blades included.



Catalog No.	E.D.P. No.	Description
99	91649	
99B	91649-01	Replacement Blades, pkg. of 5

## MAGNETIC PICK-UP TOOLS

Extremely useful for extracting metal objects from tight places where a straight tool will not reach.



Catalog No.	E.D.P. No.	O.A. Length	Wt. Lbs.
K1	91811	9	.091
K2	91812	17 to 27	.416

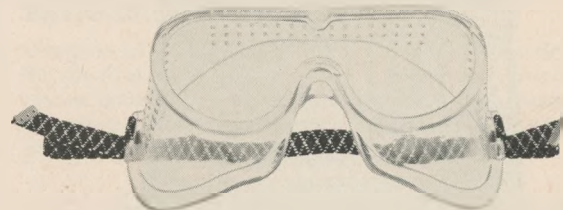
## SCRATCH BRUSH



Catalog No.	E.D.P. No.	Wt. Lbs.
2432	92132	.39

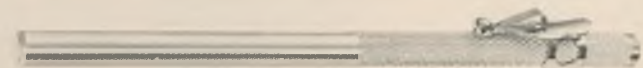
## FLEXIBLE FRAME SAFETY GOGGLE

Made from soft clear form-fitting vinyl. Will fit over Rx glasses, comes complete with adjustable elastic head band and ventilation holes.



Catalog No.	E.D.P. No.	Description	Wt.
SG-1140	92463-00	Goggle	2 oz.
SGL-1140	92464-00	Lens Only	

## POCKET MAGNETIC PICK-UP TOOL



Catalog No.	E.D.P. No.	Wt. Lbs.
K26	91816	.063

## FLEXIBLE MAGNETIC PICK-UP TOOL



Catalog No.	E.D.P. No.	Wt. Lbs.
K18	91815	.22



# AIR AND REFRIGERATION SETS

## TOOL TIP:

Do not abuse adapters. The top ratchet could damage the fastener while the bottom ratchet loses a lot of turning power.

## TOOL TIP:

Use Phillips head screwdrivers for Phillips head screws.

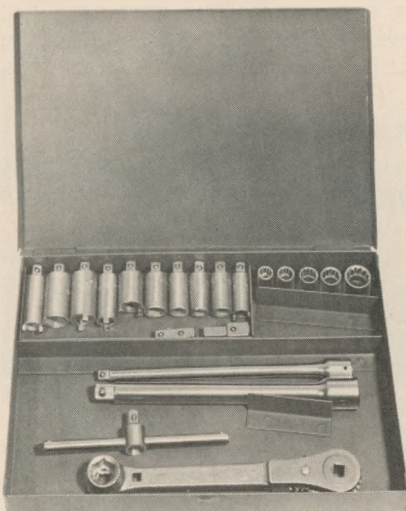
## TOOL TIP:

Do not use pliers as wrenches, rounded corners will result.

### Set No. RF80B E.D.P. No. 83080

#### 20 PIECE BASIC REFRIGERATOR SET

Includes the most popular refrigeration sockets and attachments.

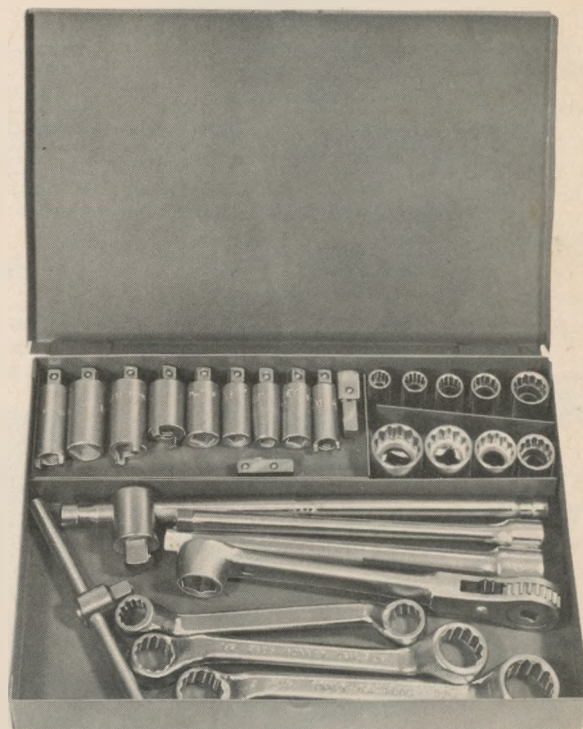


Catalog No.	E.D.P. No.	Description
V-8	32008-01	1/4" 12 Lobe Socket
V-9	32009-01	5/32" 12 Lobe Socket
V-10	32010-01	3/16" 12 Lobe Socket
V-11	32011-01	1/32" 12 Lobe Socket
V-12	32012-01	3/8" 12 Lobe Socket
V-14	32014-01	7/16" 12 Lobe Socket
V-730	41244	4 1/2" Sliding "T" Handle
V-606	41206	6" Extension
RF-2	39102	Valve Stem Socket
RF-3	39103	Valve Stem Socket
RF-4	39104	Valve Stem Socket
RF-5	39105	Valve Stem Socket
RF-6	39106	Packing Nut Socket
RF-16	39116	Packing Nut Socket
RF-71	39171	Packing Nut Socket
RF-72	39172	Packing Nut Socket
RF-73	39173	Packing Nut Socket
RF-67	39167	Kerotest Socket
RF-49	92049	Adapter
RF-45A	24445	Reversible Ratchet
MB-16	81016	Metal box, red, 1 1/8" deep, 7 1/2" long, 3 1/4" wide

### Set No. RF81B E.D.P. No. 83081

#### 28 PIECE MASTER REFRIGERATOR SET

Includes the necessary sockets, handles, attachments and box end wrenches to enable the refrigeration serviceman to handle most repairs and adjustments.



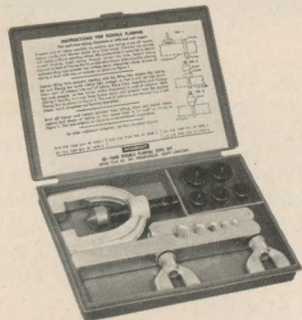
Catalog No.	E.D.P. No.	Description
V-8	32008-01	1/4" 12 Lobe Socket
V-9	32009-01	5/32" 12 Lobe Socket
V-10	32010-01	3/16" 12 Lobe Socket
V-11	32011-01	1/32" 12 Lobe Socket
V-12	32012-01	3/8" 12 Lobe Socket
V-14	32014-01	7/16" 12 Lobe Socket
V-730	41244	4 1/2" Sliding "T" Handle
V-606	41206	6" Extension
T-606	41306	6" Extension
T-16	33216-01	1/2" 12 Lobe Socket
T-18	33218-01	5/16" 12 Lobe Socket
T-20	33220-01	3/8" 12 Lobe Socket
T-730	41344	8" Sliding "T" Handle
RF-2	39102	Valve Stem Socket
RF-3	39103	Valve Stem Socket
RF-4	39104	Valve Stem Socket
RF-5	39105	Valve Stem Socket
RF-6	39106	Packing Nut Socket
RF-16	39116	Packing Nut Socket
RF-71	39171	Packing Nut Socket
RF-73	39173	Packing Nut Socket
RF-67	39167	Kerotest Socket
RF-49	92049	Adapter, 1/4" x 1/4"
RF-41	92041	Adapter, 1/4" x 3/8"
RF-45A	24445	Reversible Ratchet
2804	24613	12 Lobe Box Wrench, 3/8" & 1/2"
2805	24615	12 Lobe Box Wrench, 1/2" & 5/8"
2806	24616	12 Lobe Box Wrench, 5/8" & 1 1/8"
MB-24	81024	Metal box, red, 1 1/4" deep, 8 3/8" long, 5 1/4" wide



# AIR AND REFRIGERATION SERVICE

## DOUBLE FLARING TOOL SET

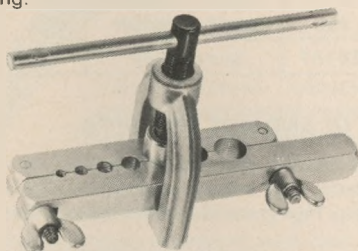
Designed to produce 45° flares on  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{5}{16}$ ",  $\frac{3}{8}$ ", and  $\frac{1}{2}$ " O.D. soft steel tubing up to .040 wall thickness. Also, designed to form single flare on soft copper, aluminum, or brass tubing. Forcing cone has swivel action design to reduce friction. Forged steel yoke hardened and tempered for greater strength. Packaged in fitted, metal case. Bright plated finish.



Catalog No.	E.D.P. No.	Wt. Ea.
RF-100B	84905	3.250 lbs.

## FLARING TOOL

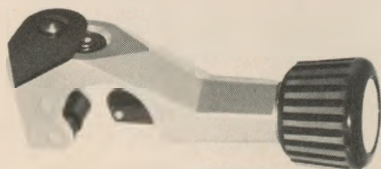
Capacity:  $\frac{3}{16}$ " to  $\frac{1}{2}$ ".  
Made of high grade steel carefully machined and heat treated for long, dependable service.  
 $\frac{3}{8}$ " wide, 6  $\frac{1}{2}$ " long.



Catalog No.	E.D.P. No.	Wt. Ea.
RF-46	92046	2.038 lbs.

## TUBE CUTTER

Designed to cut tubing from  $\frac{3}{8}$ " to 1" O.D. Reamer held securely out of the way when not in use. Finish: Nickel chrome plate. Width: 2". Length: 5".



Catalog No.	E.D.P. No.	Wt. Ea.
RF-59A	92066	.588 lbs.

## MIDGET HACKSAW FRAME

Designed to work in close places. Ideal for refrigeration servicemen and plumbers. Lgth.: 10".



## MIDGET HACKSAW FRAME (Cont.)

Catalog No.	E.D.P. No.	Wt. Ea.
2630	91406	.296 lbs.

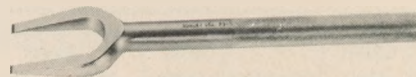
## BLADES FOR NO. 2630 FRAME (not illustrated)

Lgth.: 6". Package of 10.

Catalog No.	E.D.P. No.	Wt. Ea.
2630B	91493	.065

## FORK WEDGED SEPARATOR

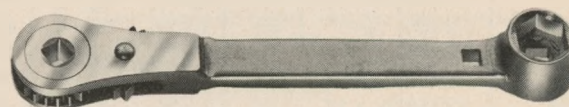
Designed to remove pulleys in tight places.  
Length 11  $\frac{1}{4}$ ".



Catalog No.	E.D.P. No.	Wt. Ea.
P-319	91319	1.625 lbs.

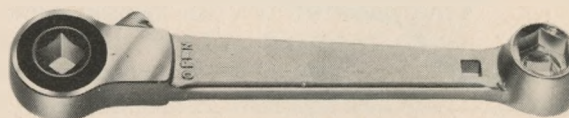
## REVERSIBLE RATCHET

Designed for work in limited space and where obstructions prevent the use of socket and ratchet handles. The efficient, smooth, working ratchet action provides the necessary speed with minimum handle movement. Outside plates are chrome plated for attractive appearance and extremely long service.



Catalog No.	E.D.P. No.	Handle 4 Pt.	Openings 6 Pt.	O.A. Length	Wt. Lbs.
RF-45A	24445	$\frac{3}{16}$ - $\frac{1}{4}$	$\frac{1}{2}$	6	.281

## NON-REVERSIBLE RATCHET



Catalog No.	E.D.P. No.	Handle 4 Pt.	Openings 4 Pt.	O.A. Length	Wt. Lbs.
RF-21	24421	$\frac{3}{16}$ - $\frac{1}{4}$	$\frac{1}{2}$	6	.338
RF-22	24422	$\frac{3}{16}$ - $\frac{1}{4}$	$\frac{1}{2}$	6	.338
RF-23	24423	$\frac{3}{16}$ - $\frac{1}{16}$	$\frac{1}{2}$	6	.338
RF-25	24425	$\frac{3}{16}$ - $\frac{1}{4}$	$\frac{1}{2}$	6	.322



# AIR AND REFRIGERATION SERVICE

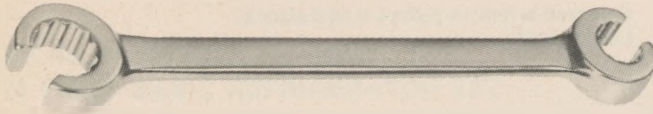
These Bonney flare nut wrenches are designed for tube fitting applications such as vacuum, hydraulic, refrigeration and fuel lines used on automotive, truck, road machinery, and industrial equipment. Each end is extra thick to avoid damage to soft, metal fittings.

## FLARE NUT WRENCHES 4 PT. 15° OPENING



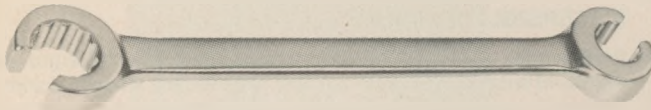
Catalog No.	E.D.P. No.	Opening	O.A. Length	Head Slot	Thick.	Wt. Lbs.
EF-1214H	22373	$\frac{3}{8} \times \frac{7}{16}$	$5\frac{1}{16}$	$\frac{7}{32} \times \frac{17}{64}$	$\frac{5}{16} \times \frac{11}{32}$	.106
EF-1618H	22375	$\frac{1}{2} \times \frac{9}{16}$	$6\frac{1}{16}$	$\frac{21}{64} \times \frac{13}{32}$	$\frac{3}{8} \times \frac{3}{8}$	.150
EF-2022H	22377	$\frac{5}{8} \times 1\frac{1}{16}$	$7\frac{7}{16}$	$\frac{13}{32} \times \frac{1}{2}$	$\frac{7}{16} \times \frac{1}{2}$	.268

## FLARE NUT WRENCHES 10 LOBE 30° OPENING



Catalog No.	E.D.P. No.	Opening	O.A. Length	Head Slot	Thick.	Wt. Lbs.
RF-51	22323	$\frac{3}{8} \times \frac{7}{16}$	$5\frac{1}{16}$	$\frac{11}{32} \times \frac{9}{32}$	$\frac{5}{16} \times \frac{11}{32}$	.120
RF-52	22325	$\frac{1}{2} \times \frac{9}{16}$	$6\frac{1}{2}$	$\frac{21}{64} \times \frac{11}{32}$	$\frac{3}{8} \times \frac{3}{8}$	.135
RF-53	22327	$\frac{5}{8} \times 1\frac{1}{16}$	$7\frac{7}{16}$	$\frac{13}{32} \times \frac{29}{64}$	$\frac{7}{16} \times \frac{1}{2}$	.250
RF-54A	22331	$\frac{3}{4} \times \frac{7}{8}$	8	$\frac{19}{32} \times \frac{5}{8}$	$\frac{13}{32} \times \frac{5}{8}$	.488

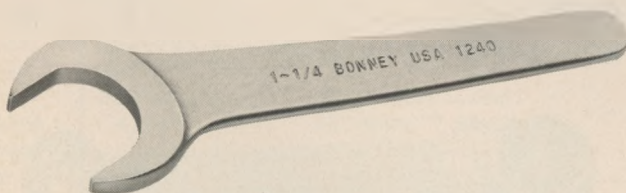
## FLARE NUT WRENCHES 10 LOBE 7½° OPENING



RF-54B	22351	$\frac{5}{8} \times 1\frac{1}{16}$	$7\frac{7}{32}$	$\frac{5}{8} \times \frac{7}{16}$	$\frac{13}{32} \times \frac{5}{8}$	.456
RF-54	22354	$\frac{3}{4} \times 1$	8	$\frac{19}{32} \times \frac{13}{16}$	$\frac{15}{32} \times \frac{5}{8}$	.456
RF-55A	22355	$\frac{7}{8} \times 1$	$9\frac{1}{2}$	$\frac{5}{8} \times 1\frac{1}{16}$	$\frac{17}{32} \times \frac{3}{4}$	.856
RF-55	22356	$\frac{7}{8} \times 1\frac{1}{8}$	$9\frac{1}{2}$	$\frac{5}{8} \times \frac{25}{32}$	$\frac{17}{32} \times \frac{3}{4}$	.788
RF-57	22357	$\frac{13}{16} \times 1\frac{1}{16}$	$8\frac{21}{32}$	$\frac{33}{64} \times \frac{5}{8}$	$\frac{39}{64} \times \frac{47}{64}$	1.100
RF-58	22358	$\frac{15}{16} \times 1\frac{1}{16}$	$10\frac{1}{4}$	$\frac{5}{8} \times \frac{55}{64}$	$\frac{5}{8} \times \frac{7}{8}$	1.120

## SPORLAN EXPANSION VALVE WRENCHES

Designed with special thin heads at 30° angle for easy removal of the power elements from the body of Sporlan expansion valves.

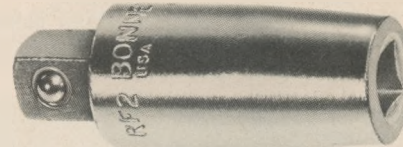


Catalog No.	E.D.P. No.	Opening	Element Number	Fits Valve (type)	Wt. Lbs.
1236	22536	$1\frac{1}{8}$	5	G, K	.325
1240	22540	$1\frac{1}{4}$	8	C, R, S, T	.319
1244	22544	$1\frac{3}{8}$	4	E, B, U, J,	.472
1248	22548	$1\frac{1}{2}$	3	P, H	.463
1252	22552	$1\frac{5}{8}$	6	M, V, W, (small)	.513

Bonney's advance design and manufacturing capabilities are blended with modern engineering and production equipment to produce a complete line of service tools to serve the growing needs of automotive, domestic, commercial refrigeration and air conditioning. Rigid quality control guarantees each tool will do the job for which designed.

## VALVE STEM SOCKETS

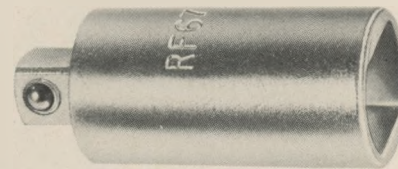
With  $\frac{1}{4}$ " square male drive for use with Bonney  $\frac{1}{4}$ " female ratchets RF-22 and RF-45A alloy steel, heat treated, nickel chrome plated.



Catalog No.	E.D.P. No.	Square Opening	Outside Nose	Diameter Shank	O.A. Length	Wt. Lbs.
RF-2	39102	$\frac{3}{8}$	$\frac{27}{64}$	$\frac{1}{2}$	$1\frac{5}{16}$	.062
RF-3	39103	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{5}{16}$	.062
RF-4	39104	$\frac{5}{16}$	$\frac{9}{16}$	$\frac{9}{16}$	$1\frac{5}{16}$	.062
RF-5	39105	$\frac{7}{32}$	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{5}{16}$	.062
RF-7	39107	$\frac{3}{8}$	$1\frac{1}{16}$	$1\frac{1}{16}$	$1\frac{5}{16}$	.093

## GLAND NUT SOCKET

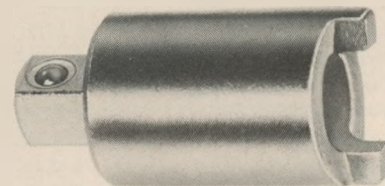
Designed for Kerotest and Imperial valve packing nuts.  $\frac{1}{4}$ " male drive. Alloy steel, heat treated, nickel chrome plated.



Catalog No.	E.D.P. No.	Oval Length	Opening Width	O.D.	O.A. Length	Wt. Lbs.
RF-67	39167	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{5}{8}$	$1\frac{1}{2}$	.078

## PACKING GLAND NUT SOCKETS

Designed with a  $\frac{1}{4}$ " square male drive for use with RF-22 or RF-45A Bonney ratchets. Also, may be used with any ratchet handle with  $\frac{1}{4}$ " female opening. High grade alloy steel, nickel chrome plated.



Catalog No.	E.D.P. No.	Diameter Inside	Outside	Prong Depth	Width	O.A. Length	Wt. Lbs.
RF-6	39106	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$1\frac{5}{16}$	.062
RF-16	39116	$\frac{21}{64}$	$\frac{15}{32}$	$\frac{1}{8}$	$\frac{1}{8}$	$1\frac{11}{16}$	.047
*RF-71	39171	$\frac{3}{16}$	$\frac{7}{16}$	$\frac{3}{32}$	$\frac{3}{32}$	$1\frac{5}{8}$	.047
RF-72	39172	$\frac{21}{64}$	$\frac{15}{32}$	$\frac{1}{8}$	$\frac{1}{8}$	$1\frac{5}{8}$	.047
RF-73	39173	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$1\frac{5}{8}$	.078

\* Designed to fit Sporlan valve packing gland nut.

## RATCHET PLUG ADAPTERS

Used to convert female drive refrigeration ratchets to either  $\frac{1}{4}$ " or  $\frac{3}{8}$ " male drive.

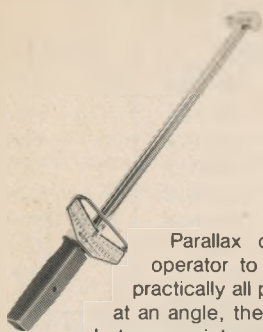


Catalog No.	E.D.P. No.	Plug End	Drive End	Weight Lbs.
RF-41	92041	$\frac{1}{4}$	$\frac{3}{8}$	.047
RF-49	92049	$\frac{1}{4}$	$\frac{1}{4}$	.031



# TORQUE PRODUCT HIGHLIGHTS

## BEAM TYPE TORQUE INDICATING WRENCHES



Parallax correcting mirror permits the operator to read the scale correctly from practically all positions. When reading the dial at an angle, the true torque reading is halfway between pointer and pointer reflection indications.

Pivoted handle transmits the load to the deflecting element in ONE precise spot for which the wrench was calibrated. A MUST in a professional bending beam wrench.

Die-Cast dial base plate with an integral pointer guard for maximum tool life.

## DIAL INDICATING TORQUE WRENCHES



Slim drive end. Easier to work in tight places.

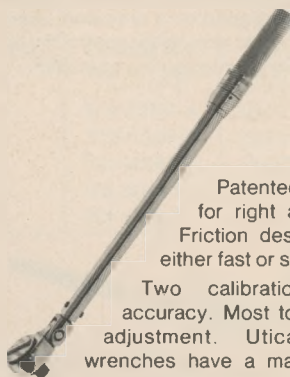
Sturdy integral indicator guards prevent breakage of the crystal.

One-piece injection molded crystal and bezel—stronger, more durable and trouble-free than the common two, three or more piece construction.

Use with handle extensions, apply load anywhere. Unique construction assures same accuracy regardless of point of load application.

Parallax—correcting mirror on dial face for correct readout from any position. When reading the dial at an angle, the true torque reading is halfway between pointer and pointer reflection indications.

## MICROMETER (CLICK) TORQUE SENSING WRENCHES PLAIN, RATCHET AND FLEX HEAD

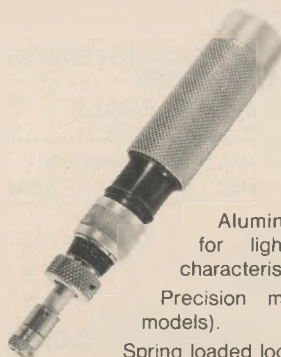


Patented torque control mechanism for right and left hand operation. Low-Friction design for consistent readings at either fast or slow torquing.

Two calibration adjustments for better accuracy. Most torque wrenches have only one adjustment. Utica's micrometer adjustable wrenches have a major and a fine adjustment for easier and better calibration.

Patented spring loaded locking mechanism assures that wrench will stay set at the desired reading. It locks automatically so it cannot be left unlocked accidentally.

## TORQUE LIMITING SCREWDRIVERS



Aluminum outside construction for lightweight and non-magnetic characteristics.

Precision micrometer scale (adjustable models).

Spring loaded lock collar automatically locks in the set reading (adjustable models).

Easy-release bit holder. Bits are held securely during operation and yet they practically fall out after being released. Eliminates bits stuck in the fastener or in the bit holder (patent applied for).

Anti-backlash.

U. S. Patent 3,119,247.

## TORQUE PRODUCTS LIMITED WARRANTY

Each torque product carrying the trademark UTICA® /BONNEY® is warranted, except as to calibration, by Utica Tool Co., Inc. for the normal life of the product to be free from any defect in material or workmanship. Each torque product carrying the trademark UTICA® /BONNEY® is warranted as to calibration by Utica Tool Co., Inc. for 90 days from the date of purchase to be free from any defect in material or workmanship.

Any product failing to conform with this warranty should be sent to Utica Tool Co., Inc., Cameron Road, Orangeburg, South Carolina 29115, Attention: Superintendent of Quality Control [or to the distributor of UTICA® /BONNEY® tools nearest you]. If inspection reveals that the product does not conform with this warranty, the product will be repaired or replaced, at the option of Utica Tool Co., Inc., without charge within 10 days of receipt of the product by Utica Tool Co., Inc.

This warranty does not extend to any product which has been altered or abused.

ALTERATION: grinding, filing, heating, welding or other modification.

ABUSE: improper or unreasonable use, as hand sockets used with an impact gun; use of "cheaters" producing excessive leverage; hammering upon non-striking face tools.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

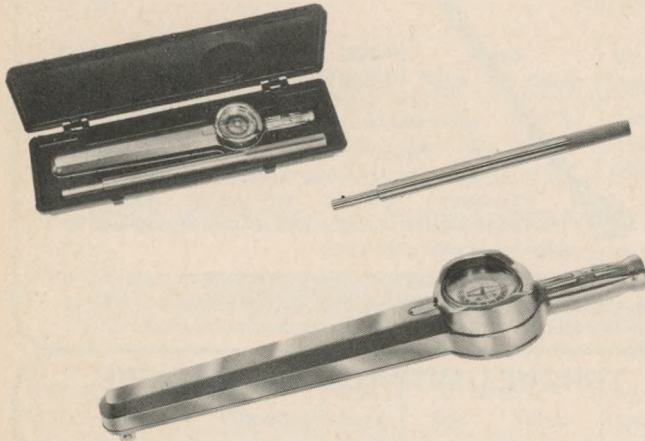


# BEAM AND DIAL TYPE TORQUE WRENCHES

## DIAL TORQUE INDICATING WRENCHES

Dial indicating torque wrenches allow the operator to determine his applied torque on a round, crystal protected scale. As either right or left torque is applied, the amount is indicated on a precision, instrument type dial. This permits the operator to accurately control the torque throughout all stages of the fastening or measuring operation.

Accuracy is +4% in either direction.



## DIAL INDICATING TORQUE WRENCHES WITH DUAL STANDARD AND METRIC SCALE

Catalog No. (See Note)*	E.D.P. No.	Capacity		Graduations	
		CM-KG	LB-IN	CM-KG	LB-IN
3/4" Drive:					
DA 130	28604	0-35	0-30	1	.5
DA 130 M	28634	0-35	0-30	1	.5
DA 175	28605	0-90	0-75	2	1
DA 175 M	28635	0-90	0-75	2	1
3/8" Drive:					
DA 2150	28606	0-175	0-150	5	2
DA 2150 M	28636	0-175	0-150	5	2
DA 2300	28607	0-350	0-300	10	5
DA 2300 M	28637	0-350	0-300	10	5
DA 2600	28611	0-700	0-600	20	10
DA 2600 M	28621	0-700	0-600	20	10
DA 250 F	28609	0-7 M.KG.	0-50 LB.FT.	2M KG.	1 LB.FT.
DA 250 FM	28639	0-7 M.KG.	0-50 LB.FT.	2 M KG.	1 LB.FT.
		M-KG	LB-FT	M-KG	LB-FT
3/4" Drive:					
DA 3600	28608	0-700 CM.KG	0-600 LB.IN.	20 CM.KG.	10 LB.IN.
DA 3600 M	28638	0-700 CM.KG.	0-600 LB.IN.	20 CM.KG.	10 LB.IN.
DA 350 F	28612	0-7	0-50	.2	1
DA 350 FM	28622	0-7	0-50	.2	1
DA 3100 F	28618	0-15	0-100	.5	2
DA3100FM	28628	0-15	0-100	.5	2
DA 3175 F	28613	0-25	0-175	.5	5
DA3175FM	28623	0-25	0-175	.5	5
DA 3250 F	28614	0-35	0-250	1	5
DA3250FM	28624	0-35	0-250	1	5
3/4" Drive:					
DA 4350 F	28619	0-50	0-350	1	10
DA4350FM	28629	0-50	0-350	1	10
DA 4500 F	28615	0-70	0-500	2	10
DA4500FM	28625	0-70	0-500	2	10
DA 4600 F	28616	0-80	0-600	2	10
DA4600FM	28626	0-80	0-600	2	10
1" Drive:					
DA51000F	28617	0-140	0-1000	5	20
DA51000F M	28627	0-140	0-1000	5	20

Note: M—After Catalog Number denotes Memory Pointer Models

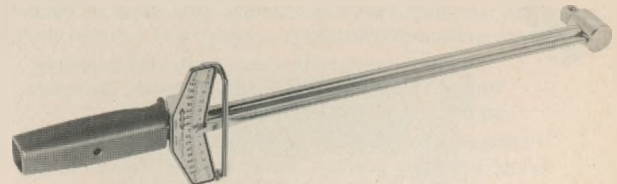
## DIAL INDICATING TORQUE WRENCHES FEATURING DUAL INTERNATIONAL STANDARD (NEWTON METRE) AND STANDARD ENGLISH SCALES.

Catalog No.	E.D.P. No.	Dr. Size	Capacity		Graduations	
			Nm	In-Lb/Ft-Lb	Nm	In-Lb/Ft-Lb
DN 9-1	28670	1/4	0-9	0-75 IN-LB	.2	1 IN-LB
DN 9-1M	28671	1/4	0-9	0-75 IN-LB	.2	1 IN-LB
DN 35-2	28672	3/8	0-35	0-300 IN-LB	1	5 IN-LB
DN 35-2M	28673	3/8	0-35	0-300 IN-LB	1	5 IN-LB
DN 70-2	28674	3/8	0-70	0-600 IN-LB	2	25 IN-LB
DN 70-2M	28675	3/8	0-70	0-600 IN-LB	2	25 IN-LB
DN 70-3	28676	1/2	0-70	0-600 IN-LB	2	25 IN-LB
DN 70-3M	28677	1/2	0-70	0-600 IN-LB	2	25 IN-LB
DN 250-3	28678	1/2	0-250	0-175 FT-LB	5	5 FT-LB
DN 250-3M	28679	1/2	0-250	0-175 FT-LB	5	5 FT-LB
DN 350-3	28682	1/2	0-350	0-250 FT-LB	10	10 FT-LB
DN 350-3M	28683	1/2	0-350	0-250 FT-LB	10	10 FT-LB
DN 500-4	28684	3/4	0-500	0-350 FT-LB	10	10 FT-LB
DN 500-4M	28685	3/4	0-500	0-350 FT-LB	10	10 FT-LB
DN 850-4	28686	3/4	0-850	0-600 FT-LB	25	20 FT-LB
DN 850-4M	28687	3/4	0-850	0-600 FT-LB	25	20 FT-LB
DN 1400-5	28688	1	0-1400	0-1000 FT-LB	50	50 FT-LB
DN14005M	28689	1	0-1400	0-1000 FT-LB	50	50 FT-LB

Note: M - After catalog number denotes memory pointer models.

## BEAM TYPE TORQUE INDICATING WRENCH DUAL METRIC AND STANDARD SCALE

Round Beam Torque Wrenches are the most economical and reliable torque tools for general service applications. The torque is measured by the deflection of a precision measuring element, and is indicated to an accuracy of +4% on a conveniently located dial — in both right and left hand direction.



Catalog No.	E.D.P. No.	Drive Size	Capacity		Graduations	
B-2600	28909	3/8	0-600 lb.-in.	0-700 CM-KG	25 lb.-in.	25 CM-KG
B-3100F	28900	1/2	0-100 lb.-ft.	0-14 M-KG	5 lb.-ft.	1 M-KG
B-3150F	28901	1/2	0-150 lb.-ft.	0-20 M-KG	5 lb.-ft.	1 M-KG
B-3200F	28902	1/2	0-200 lb.-ft.	0-28 M-KG	10 lb.-ft.	2 M-KG

## BEAM TYPE TORQUE WRENCH FEATURING DUAL INTERNATIONAL STANDARD (NEWTON METRE) AND STANDARD ENGLISH SCALES

Catalog No.	E.D.P. No.	Drive Size	Capacity		Graduations	
BN 70-2	28910	3/8	0-70 Nm	0-600 In-Lb	2 Nm	25 In-Lb
BN 140-3	28911	1/2	0-140 Nm	0-100 Ft-Lb	5 Nm	5 Ft-Lb
BN 200-3	28912	1/2	0-200 Nm	0-150 Ft-Lb	5 Nm	5 Ft-Lb
BN 275-3	28913	1/2	0-275 Nm	0-200 Ft-Lb	10 Nm	10 Ft-Lb

NOTE: FOR WARRANTY SEE PAGE 81.

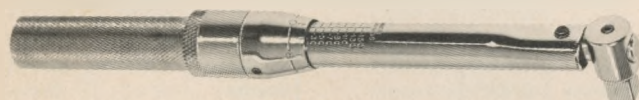


# MICROMETER ADJUSTABLE (CLICK) TORQUE SENSING WRENCHES

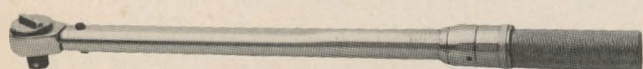
## MICROMETER (CLICK) TORQUE SENSING WRENCHES PLAIN AND RATCHETING HEAD

PULL...CLICK! — it's torqued with micrometer accuracy. No dials to watch, no pointers to protect, no handles to keep in alignment. Fast, accurate and yet simple. This is the story behind Utica's TORQUE SENSING wrenches. Whether you choose a micrometer adjustable with plain or ratcheting drive, or an industrial preset interchangeable head model, you will be using the latest in torque wrench design.

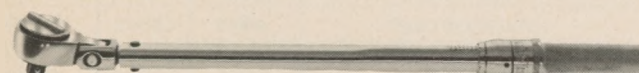
Accuracy is  $\pm 4\%$  right hand (clockwise) and  $\pm 6\%$  left hand (counter-clockwise).



PLAIN HEAD



RATCHET HEAD



FLEX HEAD



## CENTIMETER-KILOGRAM MODELS RATCHET HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{1}{4}$	TCI-150 RCM	28468	10-150	1 CM-KG	9 $\frac{1}{2}$
$\frac{3}{8}$	TCI-150R- $\frac{3}{8}$ CM	28470	10-150	1 CM-KG	9 $\frac{1}{2}$



## POUND-INCH MODELS RATCHET HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{1}{4}$	TCI-150R	28414	5-150	1 lb. in.	9 $\frac{1}{2}$
$\frac{3}{8}$	TCI-150R- $\frac{3}{8}$	28405	5-150	1 lb. in.	9 $\frac{1}{2}$
$\frac{3}{8}$	TCI-750R	28417	100-750	5 lb. in.	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-750R- $\frac{1}{2}$	28419	100-750	5 lb. in.	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-1600R	28421	700-1600	10 lb. in.	18 $\frac{1}{2}$
$\frac{3}{4}$	TCI-6000R*	28423	1000-6000	25 lb. in.	40 $\frac{1}{2}$



## METER-KILOGRAM MODELS RATCHET HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{3}{8}$	TCI-8 RM	28464	.5-8	.05 M-KG	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-8 $\frac{1}{2}$ RM	28466	.5-8	.05 M-KG	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-20 RM	28461	5-20	.1 M-KG	18 $\frac{1}{2}$
$\frac{1}{2}$	TCI 25 RM	28462	5-25	.1 M-KG	18 $\frac{1}{2}$

\*Unless otherwise specified these models are calibrated in the right hand direction only.

## POUND-FOOT MODELS RATCHET HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{3}{8}$	TCI-75FR	28424	5-75	.5 lb. ft.	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-75FR- $\frac{1}{2}$	28408	5-75	.5 lb. ft.	14 $\frac{1}{4}$
$\frac{1}{2}$	TCI-150FR	28404	10-150	1 lb. ft.	18 $\frac{1}{2}$
$\frac{1}{2}$	TCI-200FR*	28409	20-200	1 lb. ft.	18 $\frac{1}{2}$
$\frac{3}{4}$	TCI-300FR*	28410	20-300	2 lb. ft.	25
$\frac{3}{4}$	TCI-500FR*	28412	100-500	2 lb. ft.	40 $\frac{1}{2}$



## POUND-FOOT MODELS - FLEX HEAD RATCHET

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{1}{2}$	FH-150FR	28425	10-150	1 lb. ft.	19 $\frac{1}{8}$



## CENTIMETER-KILOGRAM MODELS PLAIN HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{1}{4}$	TCI-150 CM	28467	10-150	1 CM-KG	9
$\frac{3}{8}$	TCI-150- $\frac{3}{8}$ CM	28469	10-150	1 CM-KG	9



## POUND-INCH MODELS PLAIN HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{1}{4}$	TCI-150	28413	5-150	1 lb. in.	9
$\frac{3}{8}$	TCI-150- $\frac{3}{8}$	28415	5-150	1 lb. in.	9
$\frac{3}{8}$	TCI-750	28416	100-750	5 lb. in.	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-750- $\frac{1}{2}$	28418	100-750	5 lb. in.	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-1600	28420	700-1600	10 lb. in.	17



## METER-KILOGRAM MODELS PLAIN HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{3}{8}$	TCI-8 M	28463	.5-8	.05 M-KG	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-8 $\frac{1}{2}$ M	28465	.5-8	.05 M-KG	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-20 M	28460	5-20	.1 M-KG	17



## POUND-FOOT MODELS PLAIN HEAD

Drive Size	Catalog No.	E.D.P. No.	Range	Graduations	Length
$\frac{3}{8}$	TCI-75F	28406	5-75	.5 lb. ft.	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-75F- $\frac{1}{2}$	28407	5-75	.5 lb. ft.	13 $\frac{1}{2}$
$\frac{1}{2}$	TCI-150F	28403	10-150	1 lb. ft.	17



# INTERCHANGEABLE HEAD (CLICK) TYPE TORQUE WRENCHES

## INTERCHANGEABLE HEAD CLICK TORQUE SENSING WRENCHES "A" SIZE SERIES

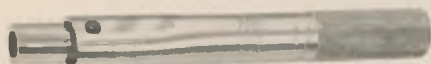
Same action as square drive torque wrenches. Interchangeable head wrenches will take a variety of heads to suit the particular application or to allow for an easy exchange of worn-out heads. Common center principle allows the head to be replaced or exchanged without need for recalibration. Single setting wrenches do not have a scale and are set on a torque tester. When ordering single setting wrenches, please specify the torque setting. A and B heads are **not** interchangeable.

## MICROMETER ADJUSTABLE WRENCHES "A" SIZE SERIES



Catalog No.	E.D.P. No.	Range	Grad.	Dimensions	Wt. Lbs.
CH-150	28551	5 to 150 lb-in	1 lb-in	9 x 1/2 x 3/8	1
CH-150 CM	28556	10 to 150	CM-KG	9 x 1/2 x 3/8	1

## SINGLE SETTING (PRESET) WRENCHES "A" SIZE SERIES



Cat. No.	E.D.P. No.	Range			CM-KG
		IN-LB	FT-LB	Nm	
CHA-5	28511	5-100	.5-8	.5-11	3-120
CHA-7	28512	10-200	1-17	1-22	10-250

## INTERCHANGEABLE HEADS FOR "A" SIZE SERIES

### PLAIN SQUARE DRIVE



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
PS 82	41253	1/4	Plain Square Drive
PS 122	41353	3/8	Plain Square Drive

### RATCHETING SQUARE DRIVE



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
RS 82	41255	1/4	Ratcheting Square Drive
RS 122	41355	3/8	Ratcheting Square Drive

## INTERCHANGEABLE HEAD CLICK TORQUE SENSING WRENCHES "B" SIZE SERIES

"B" size series of interchangeable head wrenches and heads are designed for higher torque applications than the "A" series. "A" size heads will not fit "B" size wrenches and vice versa.

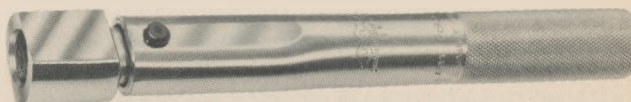
Should a head size or type be desired for either "A" or "B" series wrenches that are not listed here, it can be ordered as a special.

## MICROMETER ADJUSTABLE WRENCHES "B" SIZE SERIES

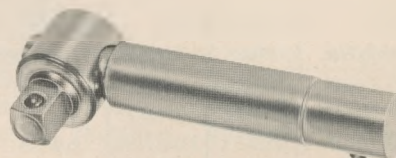


Catalog No.	E.D.P. No.	Range	Graduations	Dimensions	Wt. Lbs.
CH-750	28552	100 to 750 lb-in	5 lb-in	14 x 3/4 x 1	2
CH-75F	28553	5 to 75 lb-ft	.5 lb-ft	14 x 3/4 x 1	2
CH-1600	28554	700 to 1600 lb-in	10 lb-in	17 1/4 x 3/4 x 1	2 1/2
CH-150F	28555	10 to 150 lb-ft	.1 lb-ft	17 1/8 x 3/4 x 1	2 1/2
CH-8M	28557	.5-8 M-KG	.05	14 x 3/4 x 1	2
CH-20M	28558	5-20 M-KG	1	17 1/4 x 3/4 x 1	2 1/2

## SINGLE SETTING (PRESET) WRENCHES "B" SIZE SERIES



Catalog No.	E.D.P. No.	Range			M-KG
		IN-LB	FT-LB	Nm	
CHB-7	28513	50-500	4-40	5-55	.5-5.5
CHB-9	28514	75-750	6-60	8-85	1-8
CHB-11	28515	100-1000	8-80	11-110	1-11
CHB-13	28516	150-1500	12-125	17-170	2-17
CHB-15	28517	200-2000	16-166	22-225	3-23



### PLAIN SQUARE DRIVE

Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
PS-124	41354	3/8	Plain Square Drive
PS-164	41454	1/2	Plain Square Drive

### RATCHETING SQUARE DRIVE



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
RS-124	41356	3/8	Ratcheting Square Drive
RS-164	41456	1/2	Ratcheting Square Drive



# INTERCHANGEABLE HEADS

## OPEN END STANDARD SIZE "A"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
OP 42	22708	1/8	Open End Standard
OP 52	22710	5/32	Open End Standard
OP 62	22712	3/16	Open End Standard
OP 72	22714	7/32	Open End Standard
OP 82	22716	1/4	Open End Standard
OP 92	22718	9/32	Open End Standard
OP 102	22720	5/8	Open End Standard
OP 112	22722	11/32	Open End Standard
OP 122	22724	3/8	Open End Standard
OP 142	22728	7/8	Open End Standard
OP 162	22732	1/2	Open End Standard
OP 182	22736	9/16	Open End Standard
OP 202	22740	5/8	Open End Standard
OP 222	22744	11/8	Open End Standard
OP 242	22748	3/4	Open end Standard

## OPEN END METRIC SIZE "A"



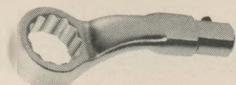
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
MO 62	22781	6 MM	Open End Metric
MO 72	22782	7 MM	Open End Metric
MO 82	22783	8 MM	Open End Metric
MO 92	22784	9 MM	Open End Metric
MO 102	22785	10 MM	Open End Metric
MO 112	22786	11 MM	Open End Metric
MO 122	22787	12 MM	Open End Metric
MO 132	22788	13 MM	Open End Metric
MO 142	22789	14 MM	Open End Metric
MO 152	22790	15 MM	Open End Metric

## LOC-RITE FLARE NUT SIZE "A"



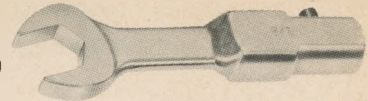
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LF 122	22224	3/8	Loc-Rite Open End Flare Nut
LF 142	22228	1/2	Loc-Rite Open End Flare Nut
LF 162	22232	5/8	Loc-Rite Open End Flare Nut
LF 182	22236	3/4	Loc-Rite Open End Flare Nut
LF 202	22240	7/8	Loc-Rite Open End Flare Nut
LF 222	22244	1 1/8	Loc-Rite Open End Flare Nut
LF 242	22248	1 1/4	Loc-Rite Open End Flare Nut

## LOC-RITE BOX SIZE "A"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LB-62	24212	3/16	Loc-Rite Box
LB-72	24214	1/8	Loc-Rite Box
LB-82	24216	1/4	Loc-Rite Box
LB-92	24218	5/16	Loc-Rite Box
LB-102	24220	3/8	Loc-Rite Box
LB-112	24222	1/2	Loc-Rite Box
LB-122	24224	5/8	Loc-Rite Box
LB-142	24228	3/4	Loc-Rite Box
LB-162	24232	7/8	Loc-Rite Box
LB-182	24236	1 1/8	Loc-Rite Box
LB-202	24240	1 1/4	Loc-Rite Box
LB-222	24244	1 3/8	Loc-Rite Box
LB-242	24248	1 1/2	Loc-Rite Box

## OPEN END STANDARD SIZE "B"



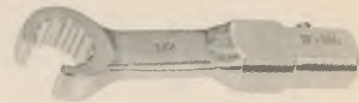
Catalog No.	E.D.P. No.	Nom. Size	Description Head Type
OP-164	22732-10	1/2	Open End Standard
OP-184	22736-10	9/16	Open End Standard
OP-204	22740-10	5/8	Open End Standard
OP-224	22744-10	11/16	Open End Standard
OP-244	22748-10	3/4	Open End Standard
OP-264	22752-10	13/16	Open End Standard
OP-284	22756-10	7/8	Open End Standard
OP-304	22760-10	15/16	Open End Standard
OP-324	22764-10	1	Open End Standard
OP-344	22768-10	1 1/16	Open End Standard
OP-364	22772-10	1 1/8	Open End Standard
OP-384	22776-10	1 3/8	Open End Standard
OP-404	22780-10	1 1/2	Open End Standard

## OPEN END METRIC SIZE "B"



Catalog No.	E.D.P. No.	Nom. Size	Description Head Type
MO-124	22781-10	12 MM	Open End Metric
MO-134	22782-10	13 MM	Open End Metric
MO-144	22783-10	14 MM	Open End Metric
MO-154	22784-10	15 MM	Open End Metric
MO-164	22785-10	16 MM	Open End Metric
MO-174	22786-10	17 MM	Open End Metric
MO-184	22787-10	18 MM	Open End Metric
MO-194	22788-10	19 MM	Open end Metric
MO-204	22789-10	20 MM	Open End Metric
MO-224	22790-10	22 MM	Open End Metric

## LOC-RITE FLARE NUT SIZE "B"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LF-164	22232-10	1/2	Loc-Rite O.E. (Flare Nut)
LF-184	22236-10	9/16	Loc-Rite O.E. (Flare Nut)
LF-204	22240-10	5/8	Loc-Rite O.E. (Flare Nut)
LF-224	22244-10	11/16	Loc-Rite O.E. (Flare Nut)
LF-244	22248-10	3/4	Loc-Rite O.E. (Flare Nut)
LF-284	22256-10	7/8	Loc-Rite O.E. (Flare Nut)
LF-324	22264-10	1	Loc-Rite O.E. (Flare Nut)
LF-364	22272-10	1 1/8	Loc-Rite O.E. (Flare Nut)

## LOC-RITE BOX SIZE "B"

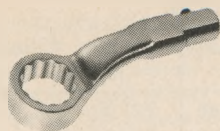


Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LB-164	24232-10	1/2	Loc-Rite Box
LB-184	24236-10	9/16	Loc-Rite Box
LB-204	24240-10	5/8	Loc-Rite Box
LB-224	24244-10	11/16	Loc-Rite Box
LB-244	24248-10	3/4	Loc-Rite Box
LB-264	24252-10	13/16	Loc-Rite Box
LB-284	24256-10	7/8	Loc-Rite Box
LB-304	24260-10	15/16	Loc-Rite Box
LB-324	24264-10	1	Loc-Rite Box
LB-344	24268-10	1 1/16	Loc-Rite Box
LB-364	24272-10	1 1/8	Loc-Rite Box



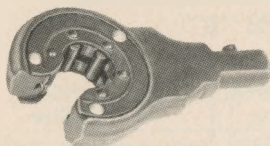
# INTERCHANGEABLE HEADS

## BOX METRIC SIZE "A"



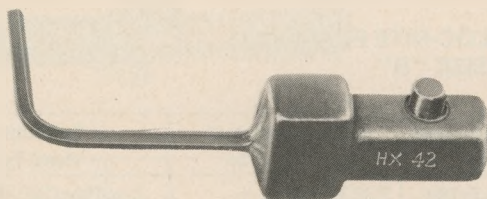
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
MB-62	22273	6 MM	Box Metric
MB-72	22274	7 MM	Box Metric
MB-82	22275	8 MM	Box Metric
MB-92	22276	9 MM	Box Metric
MB-102	22277	10 MM	Box Metric
MB-112	22278	11 MM	Box Metric
MB-122	22279	12 MM	Box Metric
MB-132	22280	13 MM	Box Metric
MB-142	22281	14 MM	Box Metric
MB-152	22282	15 MM	Box Metric

## CAM-LOCK RATCHET SIZE "A"



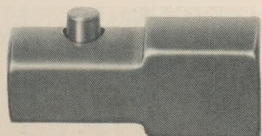
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LR-122	43512	$\frac{3}{16}$	Cam-Lock Ratchet
LR-142	43514	$\frac{7}{16}$	Cam-Lock Ratchet
LR-162	43516	$\frac{1}{2}$	Cam-Lock Ratchet
LR-182	43518	$\frac{9}{16}$	Cam-Lock Ratchet
LR-202	43520	$\frac{5}{8}$	Cam-Lock Ratchet
LR-222	43522	$1\frac{1}{16}$	Cam-Lock Ratchet
LR-242	43524	$\frac{3}{4}$	Cam-Lock Ratchet

## HEX KEY SIZE "A"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
HX-42	29504	$\frac{1}{16}$	Hex Key
HX-52	29505	$\frac{3}{16}$	Hex Key
HX-62	29506	$\frac{3}{32}$	Hex Key
HX-72	29507	$\frac{7}{16}$	Hex Key
HX-82	29508	$\frac{1}{8}$	Hex Key
HX-92	29509	$\frac{9}{16}$	Hex Key
HX-102	29510	$\frac{5}{32}$	Hex Key
HX-122	29512	$\frac{3}{16}$	Hex Key
HX-142	29514	$\frac{7}{32}$	Hex Key
HX-162	29516	$\frac{1}{4}$	Hex Key

## ADAPTER SIZE "A"



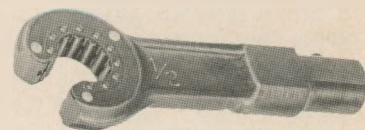
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
28522	28522		Adaptor Only

## BOX METRIC SIZE "B"



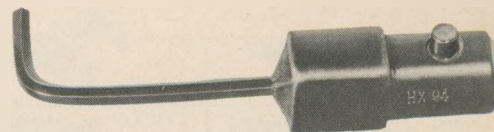
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
MB-124	22273-10	12 MM	Box End Metric
MB-134	22274-10	13 MM	Box End Metric
MB-144	22275-10	14 MM	Box End Metric
MB-154	22276-10	15 MM	Box End Metric
MB-164	22277-10	16 MM	Box End Metric
MB-174	22278-10	17 MM	Box End Metric
MB-184	22279-10	18 MM	Box End Metric
MB-194	22280-10	19 MM	Box End Metric
MB-204	22281-10	20 MM	Box End Metric
MB-224	22282-10	22 MM	Box End Metric

## CAM-LOCK RATCHET SIZE "B"



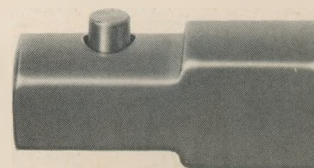
Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
LR-164	43616	$\frac{1}{2}$	Cam-Lock Ratchet
LR-184	43618	$\frac{9}{16}$	Cam-Lock Ratchet
LR-204	43620	$\frac{5}{8}$	Cam-Lock Ratchet
LR-224	43622	$1\frac{1}{16}$	Cam-Lock Ratchet
LR-244	43624	$\frac{3}{4}$	Cam-Lock Ratchet
LR-284	43628	$\frac{7}{8}$	Cam-Lock Ratchet
LR-324	43632	1	Cam-Lock Ratchet

## HEX KEY SIZE "B"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
HX-94	29509-1	$\frac{9}{16}$	Hex Key
HX-104	29510-1	$\frac{5}{32}$	Hex Key
HX-124	29512-1	$\frac{3}{16}$	Hex Key
HX-144	29514-1	$\frac{7}{32}$	Hex Key
HX-164	29516-1	$\frac{1}{4}$	Hex Key
HX-204	29520-1	$\frac{5}{16}$	Hex Key
HX-244	29524-1	$\frac{3}{8}$	Hex Key
HX-324	29532-1	$\frac{1}{2}$	Hex Key

## ADAPTER SIZE "B"



Catalog No.	E.D.P. No.	Nominal Size	Description Head Type
28523	28523		Adapter Only



# TORQUE LIMITING SCREWDRIVERS & ACCESSORIES

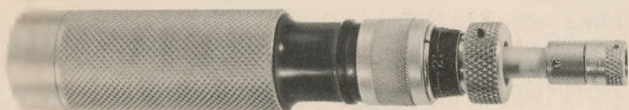
## HEAVY DUTY AND LIGHT DUTY MODELS

### TORQUE LIMITING SCREWDRIVERS HEAVY—DUTY

Torque limiting screwdrivers offer the most reliable means of tightening small threaded fasteners. When the set torque is reached, the screwdriver goes into a freewheeling condition preventing further torquing of the fastener. The control mechanism engages and disengages 8 times during each revolution of the handle in either right or left hand direction.

#### ADJUSTABLE MODELS

Adjustable models have a calibrated micrometer scale. The patented spring loaded locking mechanism assures that the screwdriver will stay set at the desired reading.



Catalog No.	E.D.P. No.	Range	Increments	Hex Drive	Wt.
TS-100	28712	1 to 100 oz. in.	2 oz. in.	½ Female	8 Oz.
TS-30	28710	1 to 30 lb. in.	1 Lb. In.	¼ Female	8 Oz.
TS-35	28711	1 to 35 in. lb.	1 Lb. In.	¼ Female	8 Oz.

#### ADJUSTABLE MODELS

TS-10CM	28703	1-10CM-KG	.2CM-KG	¼ Female	8 Oz.
TS-30CM	28704	2.5-30CM-KG	.5CM-KG	¼ Female	8 Oz.

#### PRESET MODEL

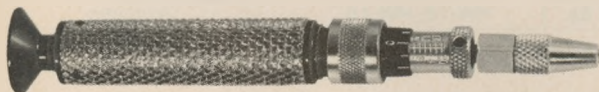
Preset models are best suited for high volume assembly line work. Please specify torque setting desired when ordering preset tools.

Catalog No.	E.D.P. No.	In-Oz.	In-Lb.	Nm	CM-KG	Hex Drive
TS-SN-1	28714	10-150	1-10	1-1.1	1-12	¼ Female
TS-SN-2	28716	64-640	4-40	5-4.5	5-45	¼ Female

### TORQUE LIMITING SCREWDRIVERS LIGHT DUTY

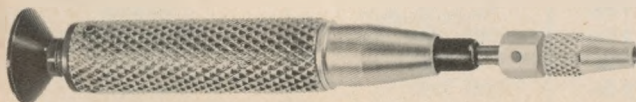
These light duty torque limiting screwdrivers offer the most reliable means of tightening the smallest of threaded fasteners. The largest model only weighs 1 oz. When the set torque is reached, the screwdriver goes into a freewheeling condition preventing further torquing of the fastener. The control mechanism engages and disengages 4 times during each revolution of the handle in either right or left hand direction.

#### ADJUSTABLE MODELS



Catalog No.	E. D. P. No.	Range	Increments	Drive	Lgth.	Wt.
TT-1	28701	1-20 oz. in.	¼ Oz. In.	Univ.	3%	1 Oz.
TT-1CM	28705	1-1.5CM-KG	.02 CM-KG	Univ.	3%	1 Oz.

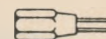
#### PRESET MODELS



Catalog No.	E.D.P. No.	Range	Drive	Lgth.	Wt.
TT-SN-1	28702	1-30 .07-2.0 .1-2	Univ.	3%	1 oz.

### HEAVY DUTY TORQUE LIMITING SCREWDRIVER ACCESSORIES

#### HEX KEY



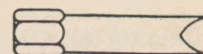
Catalog No.	E.D.P. No.	Hex Size	Cap Screw Size	Set Screw Size	Flathead Screw Size
HW-1	28719-03	.050	0	3,4	1,2
HW-2	28719-04	⅛	1	5,6	3,4
HW-3	28719-05	⅜	2,3	8	5,6
HW-4	28719-06	⅜	4,5	10	8
HW-4A	28719-07	7/16	6	—	—
HW-5	28719-08	⅝	—	¼	10
HW-5A	28719-09	9/16	8	—	—
HW-6	28719-10	5/8	10	5/16	¼
HW-7	28719-12	3/4	¼	3/8	—

#### HEX SOCKET



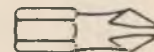
Catalog No.	E.D.P. No.	Hex Size	Screw Size	Nut Size
W-7	28718-08	⅛	2	—
W-7A	28718-10	5/32	—	9,1
W-8	28718-12	3/16	3,4,5	2,3
W-8A	28718-14	7/32	—	—
W-9	28718-16	¼	6,8	4
W-9A	28718-18	9/32	—	—
W-10	28718-20	5/16	10,12	5,6
W-11	28718-22	11/32	—	8
W-12	28718-24	3/8	¼	10
W-13	28718-28	7/16	—	12,¼

#### SCREWDRIVER BIT



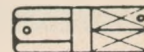
Catalog No.	E.D.P. No.	Blade Width	Blade Thick.	Screw Size
HW-11	28726-02	.134	.028	2,3
HW-11A	28726-03	.155	.030	3,4
HW-12	28726-04	.185	.034	4,5
HW-13	28726-05	.214	.040	5,6
HW-14	28726-06	.250	.042	6,8

#### PHILLIPS BIT



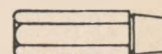
Catalog No.	E.D.P. No.	Point Size	Screw Size
HW-15	28727-10	0	0,1
HW-16	28727-11	1	2,3,4
HW-17	28727-12	2	5,6,7,8,10
HW-17A	28727-13	3	12,14

#### SQUARE DRIVE ADAPTER



Catalog No.	E.D.P. No.	Description
HW-18	28728	For use with Hex Sockets "W" series and all regular sockets with ¼ square female drive.

#### MINIATURE BIT HOLDER

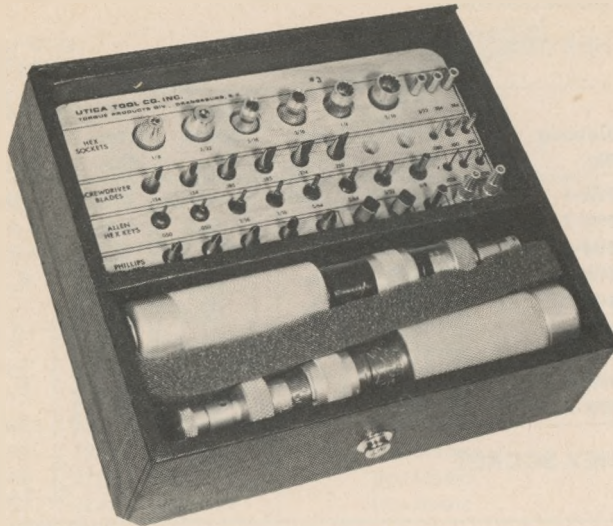


Catalog No.	E.D.P. No.	Description
HW-19	28729	To adapt all light duty accessories for use in heavy duty models.



# HEAVY DUTY TORQUE SCREWDRIVER KITS

## HEAVY DUTY TORQUE LIMITING SCREWDRIVER KITS



**Catalog No. Kit 1**      **E.D.P. No. 85001**  
**Range 1 to 100 oz.-in.**      **18 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-100	Torque Screwdriver
1 Ea.	.028, .035, .050, $\frac{1}{16}$ , $\frac{3}{64}$	Hex Keys
1 Ea.	$\frac{3}{32}$ , $\frac{7}{64}$ , $\frac{1}{8}$ , $\frac{3}{16}$	Sockets
1 Ea.	.080, .100, .134, .185	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	HW-18, HW-19	Adapters

**Catalog No. Kit 2**      **E.D.P. No. 85002**  
**Range 1 to 30 lb. in.**      **22 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-30	Torque Screwdriver
1 Ea.	.035, .050, $\frac{1}{16}$ , $\frac{3}{64}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Hex Keys
1 Ea.	$\frac{7}{64}$ , $\frac{1}{8}$ , $\frac{3}{16}$ , $\frac{1}{4}$ , $\frac{5}{16}$	Sockets
1 Ea.	100, .134, .185, .214, .250	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	HW-18, HW-19	Adapters

**Catalog No. Kit 3**      **E.D.P. No. 85003**  
**Range 1 ox. in. to 30 lb. in.**      **41 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-100, TS-30	Torque Screwdrivers
1 Ea.	.028, $\frac{3}{32}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Hex Keys
1 Ea.	$\frac{3}{32}$ , $\frac{1}{8}$ , $\frac{5}{32}$ , $\frac{1}{4}$ , $\frac{5}{16}$	Sockets
1 Ea.	.080, .214, .250	Screwdriver Bits
1 Ea.	2	Phillips
2 Ea.	.035, .050, $\frac{1}{16}$ , $\frac{3}{64}$	Hex Keys
2 Ea.	$\frac{7}{64}$ , $\frac{3}{16}$	Sockets
2 Ea.	.100, .134, .185	Screwdriver Bits
2 Ea.	0, 1	Phillips
2 Ea.	HW-18, HW-19	Adapters

**Catalog No. Kit 1M**      **E.D.P. No. 85006**  
**Range 1 to 10 CM-KG**      **18 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-100CM	Torque Screwdriver
1 Ea.	.028, .035, .050, $\frac{1}{16}$ , $\frac{5}{64}$	Hex Keys
1 Ea.	$\frac{3}{32}$ , $\frac{7}{64}$ , $\frac{1}{8}$ , $\frac{3}{16}$	Sockets
1 Ea.	.080, .100, .134, .185	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	HW-18, HW-19	Adapters

**Catalog No. Kit 2M**      **E.D.P. No. 85007**  
**Range 2.5 to 30 CM-KG**      **22 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-30CM	Torque Screwdriver
1 Ea.	.035, .050, $\frac{1}{16}$ , $\frac{3}{64}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Hex Keys
1 Ea.	$\frac{7}{64}$ , $\frac{1}{8}$ , $\frac{3}{16}$ , $\frac{1}{4}$ , $\frac{5}{16}$	Sockets
1 Ea.	100, .134, .185, .214, .250	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	HW-18, HW-19	Adapters

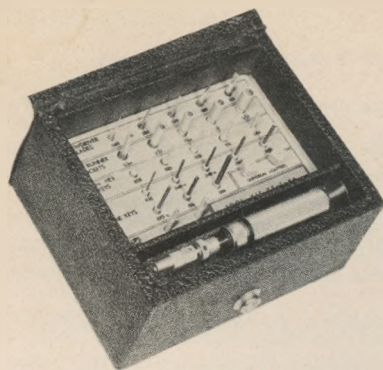
**Catalog No. Kit 3M**      **E.D.P. No. 85005**  
**Range 1 to 30 CM-KG**      **41 Piece**

Qty.	Size or Catalog No.	Description
1 Ea.	TS-10CM, TS-30CM	Torque Screwdrivers
1 Ea.	.028, $\frac{3}{32}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Hex Keys
1 Ea.	$\frac{3}{32}$ , $\frac{1}{8}$ , $\frac{5}{32}$ , $\frac{1}{4}$ , $\frac{5}{16}$	Sockets
1 Ea.	.080, .214, .250	Screwdriver Bits
1 Ea.	2	Phillips
2 Ea.	.035, .050, $\frac{1}{16}$ , $\frac{3}{64}$	Hex Keys
2 Ea.	$\frac{7}{64}$ , $\frac{3}{16}$	Sockets
2 Ea.	.100, .134, .185	Screwdriver Bits
2 Ea.	0, 1	Phillips
2 Ea.	HW-18, HW-19	Adapters



# LIGHT DUTY TORQUE SCREWDRIVERS KITS AND ACCESSORIES

## LIGHT DUTY TORQUE LIMITING SCREWDRIVER KITS



Catalog No. Kit TT-1-A  
Range 1 to 20 Oz.-In.

E.D.P. No. 85005  
28 Piece

Qty.	Size or Catalog No.	Description
1 Ea.	TT-1	Torque Screwdriver
1 Ea.	.028, .035, .050, $\frac{1}{16}$ , $\frac{5}{64}$	Hex Keys
1 Ea.	$\frac{3}{64}$ , $\frac{1}{32}$ , $\frac{1}{16}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Sockets
1 Ea.	.040, .055, .070, .080, .100	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	.033-4, .048-4, .048-6 .060-6, .069-6, .072-6 .076-4, .096-6	Spline Keys
2 Ea.	HW-20	Adapter

Catalog No. Kit TT-1-4CM  
Range .1 to 1.5 CM-KG

E.D.P. No. 85009  
28 Piece

Qty.	Size or Catalog No.	Description
1 Ea.	TT1CM	Torque Screwdriver
1 Ea.	.028, .035, .050, $\frac{1}{16}$ , $\frac{5}{64}$	Hex Keys
1 Ea.	$\frac{3}{64}$ , $\frac{1}{32}$ , $\frac{1}{16}$ , $\frac{1}{8}$ , $\frac{5}{32}$	Sockets
1 Ea.	.040, .055, .070, .080, .100	Screwdriver Bits
1 Ea.	0, 1	Phillips
1 Ea.	.033-4, .048-4, .048-6, .060-6, .069-6, .072-6, .076-4, .096-6	Spline Keys
2 Ea.	HW-20	Adapter

## UNIVERSAL BIT HOLDER



Catalog No.	E.D.P. No.	Description
HW-20	28730	This holder can be drilled out to accommodate odd keys and bits. It is also used as an adapter for checking light duty torque screwdrivers on Torque Testers.

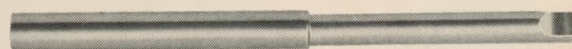
## LIGHT DUTY TORQUE LIMITING SCREWDRIVER ACCESSORIES

### SCREWDRIVER BIT



Catalog No.	E.D.P. No.	Blade Width	Blade Thick.	Screw Size
TW-0	28706-00	.040	.008	0000,000
TW-1	28706-01	.055	.010	0000,000
TW-2	28706-02	.070	.012	000,00
TW-3	28706-03	.080	.015	00,0,1
TW-4	28706-04	.100	.015	0,1,2

### HEX SOCKET



Catalog No.	E.D.P. No.	Hex Size	Screw Size	Nut Size
TW-5	28708-05	$\frac{5}{64}$	000,00	000,00
TW-6	28708-06	$\frac{3}{32}$	0	—
TW-7	28708-07	$\frac{7}{64}$	1	—
TW-8	28708-08	$\frac{1}{8}$	2	—
TW-9	28708-09	$\frac{5}{32}$	—	0,1

### PHILLIPS BIT



Catalog No.	E.D.P. No.	Point Size	Screw Size
TW-10	28707-10	0	0,1
TW-11	28707-11	1	2,3,4

### HEX KEY



Catalog No.	E.D.P. No.	Hex Size	Cap Screw Size	Set Screw Size	Flat Head Screw
TW-12	28709-12	.028	—	0	—
TW-13	28709-13	.035	—	1,2	0
TW-14	28709-14	.050	0	3,4	1,2
TW-15	28709-15	$\frac{1}{16}$	1	5,6	3,4
TW-16	28709-16	$\frac{5}{64}$	2,3	8	5,6

### SPLINE KEYS



Catalog No.	E.D.P. No.	Spline Size	No. Of Flutes
28715-00	28715-00	.033	4
28715-01	28715-01	.048	4
28715-02	28715-02	.048	6
28715-03	28715-03	.060	6
28715-04	28715-04	.069	6
28715-05	28715-05	.072	6
28715-06	28715-06	.076	4
28715-07	28715-07	.096	6

NOTE: FOR WARRANTY SEE PAGE 81.



# TORQUE MULTIPLIERS AND TORQUE TESTERS

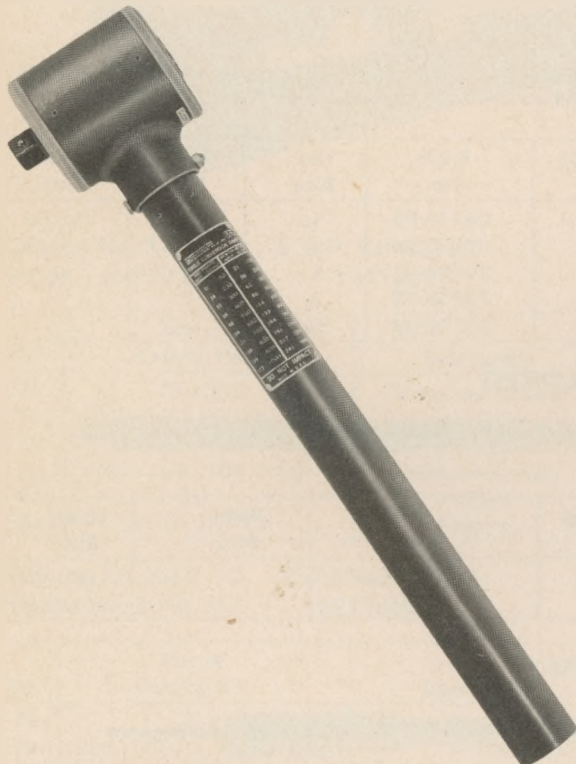
## UNIVERSAL TORQUE MULTIPLIERS

Utica Universal Torque Multipliers, the Force Multipliers. They turn fasteners easily where working space is limited and unusually high force must be applied.

They are rugged, precision-made, geared wrenches. Built with needle roller bearings throughout. Utica multipliers are designed for accurate torquing of large fasteners as well as providing potent output of power for loosening tough nuts and bolts.

Manual input torque is multiplied through the gearing, and output torque applied to the fastener. Because minimum effort is required to operate a Utica Torque Multiplier, one man operation is feasible.

Rotation of the output drive is 360° continuous in either direction.



**1/2" SQUARE DRIVE MULTIPLIER**

Catalog No.	E.D.P. No.	Description
TMA-1000F	93171	Power Ratio: 6:1 Input Drive: 1/2" (12.7 mm) Sq. F. Rated Input Capacity: 169-ft-lbs (241 Nm, 24 M-KG) Output Drive: 3/4" (19.1 mm) Sq. M. Rated Output Capacity: 1000 ft-lbs (1400 Nm, 140 mkp) Net Weight Lbs: 14 Lbs (6.4 kg)

**3/4" SQUARE DRIVE MULTIPLIER**

Catalog No.	E.D.P. No.	Description
TMA-2000F	93172	Power Ratio: 6:1 Input Drive: 3/4" (19.1 mm) Sq. F. Rated Input Capacity: 333 ft-lbs (474 Nm, 47 M-KG) Output Drive: 1" (25.4 mm) Sq. M. Rated Output Capacity: 2000 ft-lbs (2700 Nm, 280 mkp) Net Weight Lbs: 17 Lbs (7.7 kg)

## TORQUE TESTER (PRECISION) TORSION BAR TYPE GT

1 oz. in. to 500 lb. ft. and 0 to 25 M-KG ranges.

1% accuracy.

Resolution comparable to highly priced electronic or optical torque testers.

"Turn 'Round" indicator (dial can be turned to face any direction around its axis).

Memory pointer with simple push-button release.

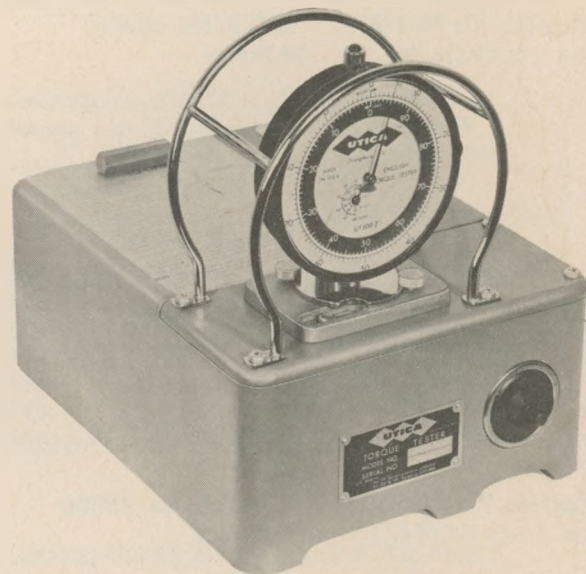
Durable and simple construction.

Special enclosed compartment for adapters and calibration papers.

Meets or exceeds military specifications MIL-T-26639 (Applicable sizes).

Certification traceable to the National Bureau of Standards provided with all units.

Will check both right and left hand torque devices.



## ENGLISH SCALES—TYPE GT

Catalog No.	E.D.P. No.	Range	Incre.	Output Shaft	Adapters
GT-600Z	93121	0 to 600 Oz. In.	1 Oz. In.	1/4 Hex. Male	1/4 Sq. Female 3/8 Sq. Female
GT-250P	93122	0 to 250 Lb. In.	.5 Lb. In.	3/8 Sq. Male	1/4 Sq. Female 3/8 Sq. Female
GT-1000P	93123	0 to 1000 Lb. In.	2 Lb. In.	1/2 Sq. Male	3/8 Sq. Female 1/2 Sq. Female
GT-2000P	93124	0 to 2000 Lb. In.	.4 Lb. In.	1/2 Sq. Male	3/8 Sq. Female 1/2 Sq. Female
GT-500F	93125	0 to 500 Lb. Ft.	1 Lb. Ft.	3/4 Sq. Male	1/2 Sq. Female 3/4 Sq. Female

## METRIC SCALES—TYPE GT

Catalog No.	E.D.P. No.	Range	Incre.	Output Shaft	Adapters
GT-50 CM	93127	0-50 CM-KG	.1 CM-KG	1/4 Hex Male	1/4 Sq. Female 3/8 Sq. Female
GT-250 CM	93128	0-250 CM-KG	.5 CM-KG	3/8 Sq. Male	1/4 Sq. Female 3/8 Sq. Female
GT-1000 CM	93129	0-1000 CM-KG	.2 CM-KG	1/2 Sq. Male	3/8 Sq. Female 1/2 Sq. Female
GT-25M	93130	0-25 M-KG	.05 M-KG	1/2 Sq. Male	3/8 Sq. Female 1/2 Sq. Female

Note: The adapters are female to female socket type, one end fits the tester drive, the other is female square of the size listed.



# TORQUE TESTERS AND PRIMARY STANDARDS

## TORQUE TESTERS (ULTRA PRECISION) CANTILEVER BEAM TYPE ET

Will check both right and left hand torque devices.

1 oz. in. to 1000 lb.-ft. ranges.

± 1% or 1 graduation accuracy on Standard Models

± ½% Accuracy over 60% of the range on special order.

Easily positioned 360° Viewing Dial.

Will operate accurately when mounted in any position.

Maximum input torque is retained on the dial until reset to zero.

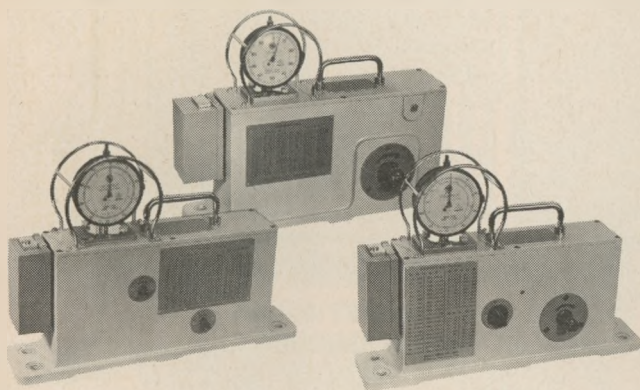
Will remain accurate after 50,000 cycles at 75% full load, with a breakaway (click) type torque wrench.

20% overload factor.

Portable and light weight.

Certification traceable to N.B.S. supplied with each tester.

Meets or exceeds military specification MT-T-26639.



## ENGLISH SCALES TYPE ET

Catalog No.	E.D.P. No.	Range	Incre.	Drives	Standard Adapters*
ET100Z	93101	0 to 100 Oz. In.	.1 Oz. In.	¼ Hexagon	¼, ⅜
ET 500Z	93102	0 to 500 Oz. In.	.5 Oz. In.	¼ Hexagon	¼, ⅜
ET 250P	93103	0 to 250 Lb. In.	.25 Lb. In.	½ Square	¼, ⅜, ½
ET 2000P	93104	0 to 2000 Lb. In.	2 Lb. In.	½ Square	¼, ⅜, ½
ET 6000PF	93105	0 to 6000 Lb. In.	5 Lb. In.	1" Square	½, ¾
		0 to 500 Lb. Ft.	.5 Lb. Ft.		
ET 1000F	93106	0 to 1000 Lb. Ft.	1 Lb. Ft.	1" Square	¾, 1"

## DUAL RANGE MODELS

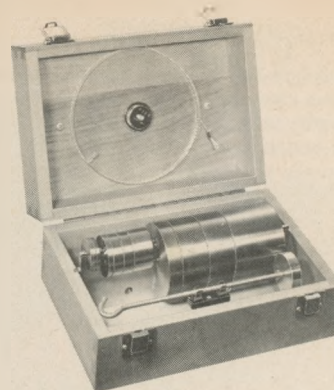
ET 600Z	93107	0 to 100 Oz. In.	.1 Oz. In.	¼ Hexagon	¼, ⅜
		0 to 500 Oz. In.	.5 Oz. In.	¼ Hexagon	
ET 2250P	93108	0 to 250 Lb. In.	.25 Lb. In.	½ Square	¼, ⅜, ½
		0 to 2000 Lb. In.	2 Lb. In.		

Note: The adapters are female to female socket type—one end fits the tester drive, the other is female square of the size listed.

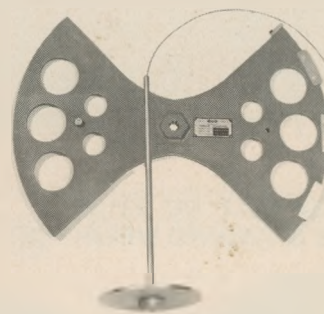
## PRIMARY TORQUE STANDARDS

Primary torque standards are used to calibrate torque testers and to conduct other precision torque measurements. They consist of a lever arm to which weights are attached to produce torque. Utica primary torque standards are of a radius design to avoid cosine errors, and when used in conjunction with class "C" weights (supplied with CTP-500Z) are guaranteed to be accurate to within ±.25%.

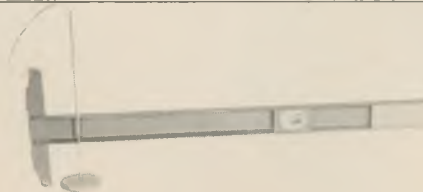
Weight sets for CTS-2000P and CTS-1000F are shown on next page and are certified to class "C" tolerance and traceable to N.B.S.



Catalog No.	E.D.P. No.	Calibration of Tester Models	Description
CTP-500Z	93181	ET 100Z ET 500Z ET 600Z GT 600Z GT 50CM	Calibration Range: 5 to 505 Oz. In. Drive: ¼" Female Hexagon Effective Radius: 2.835" Weights: All weights are included and are marked in effective torque.



Catalog No.	E.D.P. No.	Calibration of Tester Models	Description
CTS-2000P	93182	ET 250P ET 2000P ET 2250P GT 250P GT 1000P GT 2000P GT 250CM GT 1000CM	Calibration Range: 20 to 2000 Lb.-In. Drives: ¼", ⅜" ½" Female Square Effective Radius: 10" 2 Lb. weight holder is included. (Weights not included.)



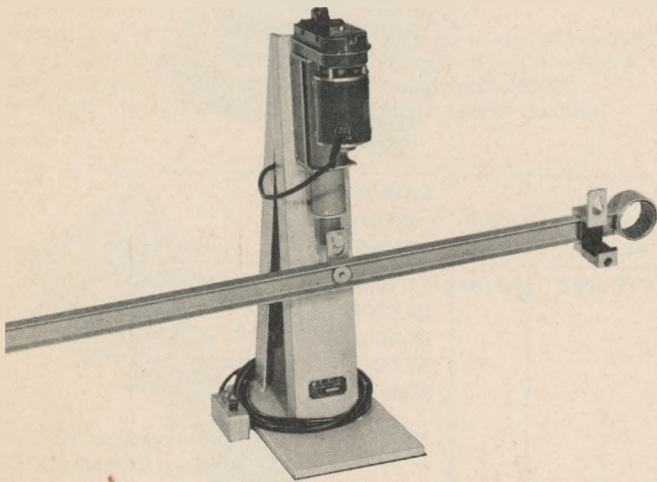
Catalog No.	E.D.P. No.	Calibration of Tester Models	Description
CTS-1000F	93183	ET 6000PF ET 1000F GT 500F GT 25M	Calibration Range: 200 to 12000 Lb.-In. Drives: ⅜", ¾" and 1" Female Square Effective Radius: 40" 5 Lb. weight holder is included. (Weights not included.)



# ACCESSORIES AND CUSTOM TORQUE WRENCHES

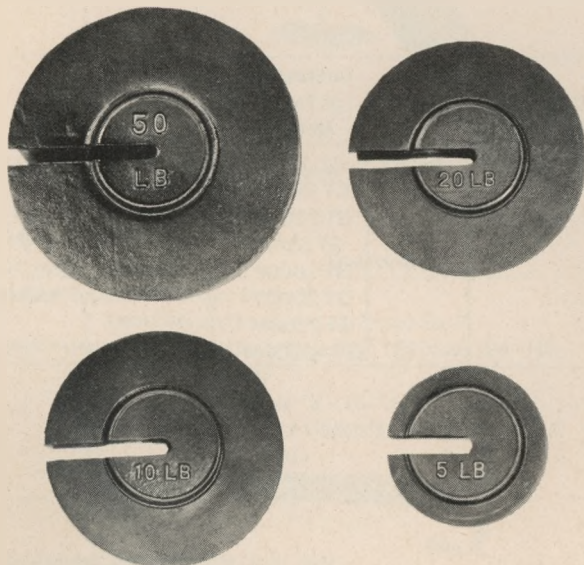
## MECHANICAL LOADING DEVICE

A mechanical loading device is used to provide power assist in testing or calibrating higher capacity torque wrenches. The device will accommodate all makes of torque wrenches up to 1000 lb-ft in capacity. Remote, push button controls make it easy to take precision torque readings from any convenient position around the torque tester.



Catalog No.	E.D.P. No.	Description
MLT-1200FE	93184	Capacity: 1000 Lb. Ft. Stroke: 6 inches Power: 110v, 60 cycles, 300 watts

## CAT. NO. WS1000F E.D.P. NO. 93186 9 PIECE TORQUE STANDARD WEIGHT SET

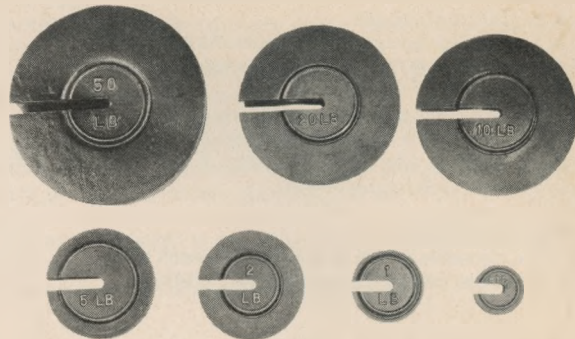


### SET CONSISTS OF:

Weight	E.D.P. No.	Quantity	Dia.	Thickness
5 lb.	93104-50	1	6"	3/16"
10 lb.	93104-51	1	9"	13/16"
20 lb.	93104-52	2	9"	1 1/2"
50 lb.	93104-53	5	11"	2 1/8"

This weight set is used with standard CTS 1000 F to calibrate testers. . . ET-6000 PF — ET-1000 F — GT-500F — GT-25M. Weight sets are packed in sturdy wooden boxes.

## CAT NO. WS-20000P E.D.P. NO. 93185 10 PIECE TORQUE STANDARD WEIGHT SET



### SET CONSISTS OF:

Weight	E.D.P. No.	Quantity	Dia.	Thickness
1/2 lb.	93104-47	1	2"	7/16"
1 lb.	93104-48	1	4"	7/16"
2 lb.	93104-49	1	6"	2 1/4"
5 lb.	93104-50	1	6"	1 3/16"
10 lb.	93104-51	1	9"	1 3/16"
20 lb.	93104-52	2	9"	1 1/2"
50 lb.	93104-53	3	11"	2 1/8"

This weight set is used with standards to calibrate testers. . . ET-250 P — ET-2000 P — ET-2250 P — GT-250 P — GT-1000 P — GT-2000 P — GT-250 CM and GT-1000 CM. Weight sets are packed in sturdy wooden boxes.

## CUSTOM BUILT - PRESET (CLICK) TORQUE SENSING WRENCHES



Due to a countless number of possible combinations of heads and handles, single setting, fixed head wrenches are not stocked and are only made to order. We encourage our customers to "design" their own wrenches by selecting one of the standard handles listed, and one of the heads shown on the previous pages. In requesting quotations, please specify handle size, head type and size, torque setting and quantities. In general, single setting fixed head wrenches are economical to order in large quantities only. For special applications, or for applications involving a limited tool clearance or access, our engineering department will design a proper head or a complete wrench. In requesting a quotation please specify the following:

- 1) Nut or bolt type and size. For special fasteners send in a drawing or, if possible, the part itself.
- 2) Description of the problem. If possible, send drawings or sketches showing clearances, obstructions, etc.
- 3) Special requirements (non-sparking, non-magnetic, weight or size limitations, etc.)
- 4) Torque setting. If unknown, we will attempt to determine it.
- 5) Quantities.

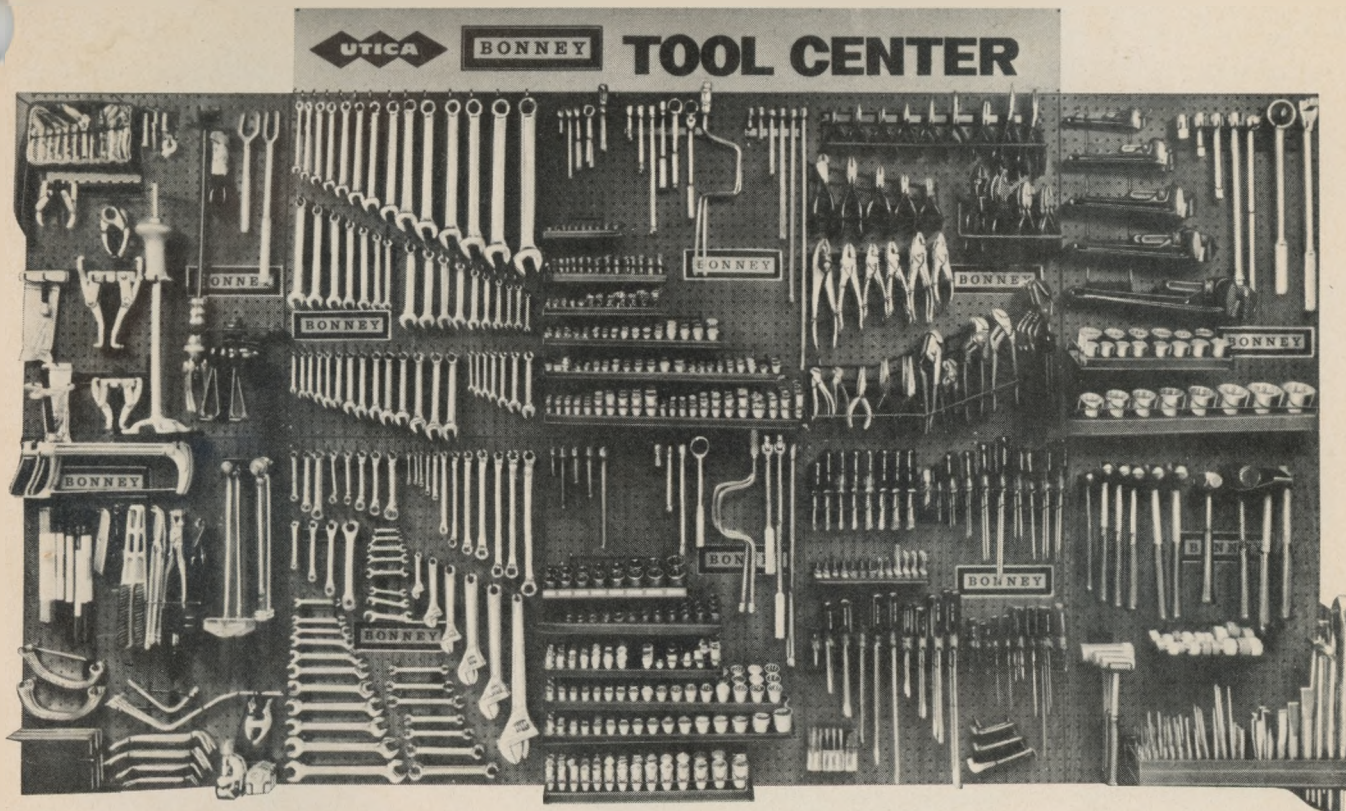
### STANDARD HANDLES AVAILABLE

Handle Size	Torque Range		Dimensions		Weight Less head (lbs)
			Length Inches	Diameter Inches	
A-5	5-100	.5-8	5	3/8	1/2
A-7	10-200	1-17	7	5/8	3/4
B-7	50-500	4-40	7	7/8	1
B-9	75-750	6-60	9	7/8	1 1/4
B-11	100-1000	8-80	11	7/8	1 1/2
B-13	150-1500	12-125	13	7/8	1 3/4
B-15	200-2000	16-166	15	7/8	2

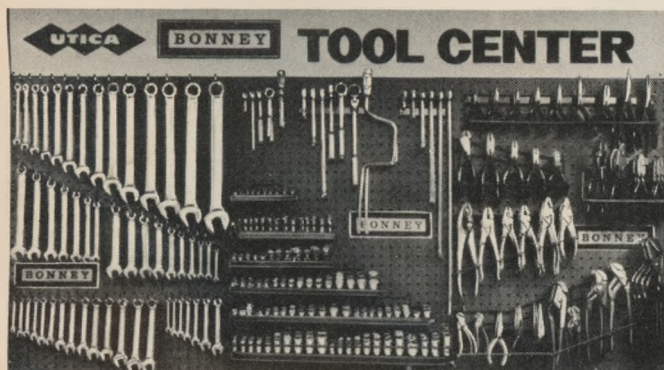


# 4

## PRE—DESIGNED MULTIPLE BOARD TOOL SYSTEMS TO MEET YOUR MARKET REQUIREMENTS



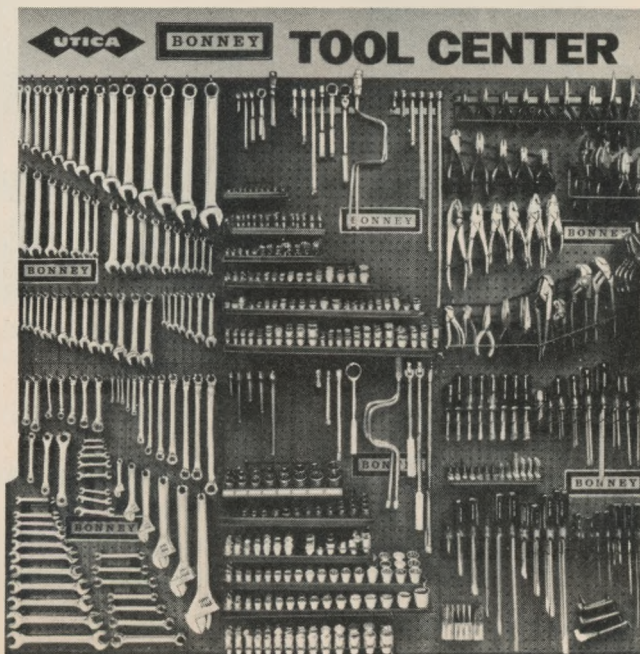
BTS-300 pre-designed multiple board tool system. Pre-designed for retailer having an annual volume of \$300,000.00.



BTS-100 pre-designed multiple board tool system. Pre-designed for the retailer having an annual volume of \$100,000.00



BTS-50 pre-designed multiple board tool system. Pre-designed for the retailer having an annual volume of \$50,000.00



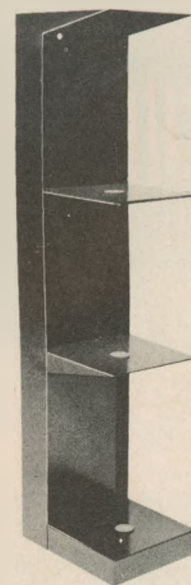
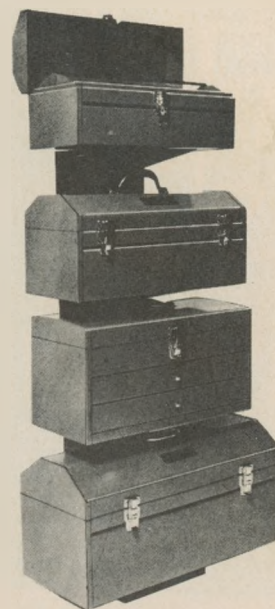
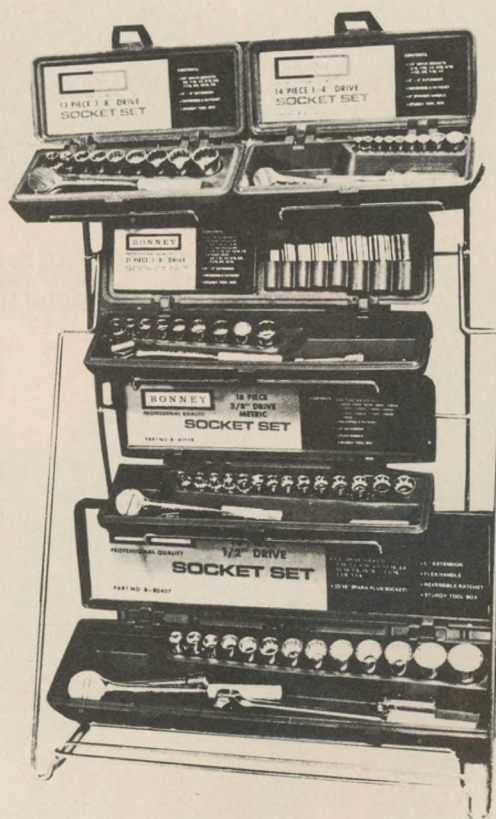
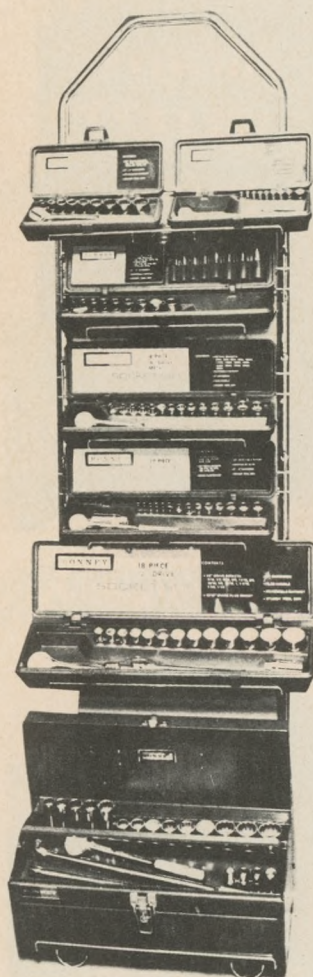
BTS-200 pre-designed multiple board tool system. Pre-designed for retailer having an annual volume of \$200,000.00.



## POINT OF PURCHASE DISPLAYS

# Socket Sets & Tool Boxes

Utica/Bonney makes available a complete line of Silent Salesmen to help you produce profits. Ask your Utica/Bonney man today!



### 88750 CONSISTS OF:

Set No. B-83958 - 18 Piece  $\frac{3}{8}$ " Metric Socket Set — B-80308 - 21 Piece  $\frac{3}{8}$ " Drive Socket Set — B-80407 - 18 Piece  $\frac{1}{2}$ " Drive Socket Set — B-80204 - 14 Piece  $\frac{1}{4}$ " Drive Socket Set — 80307 - 13 Piece  $\frac{3}{8}$ " Drive Socket Set — B-80470 - 23 Piece  $\frac{1}{4}$ " Drive Socket Set — B-80005 - Piece Socket Set — 20 Piece  $\frac{1}{4}$ " &  $\frac{3}{8}$ " Drive Socket Set.

### 88751 CONSISTS OF:

Set No. B-83958 - 18 Piece  $\frac{3}{8}$ " Metric socket Set — B-80308 - 21 Piece  $\frac{3}{8}$ " Drive Socket Set — B-80407 - 18 Piece  $\frac{1}{2}$ " Drive Socket Set — B-80204 - 14 Piece  $\frac{1}{4}$ " Drive Socket Set — 80307 - 13 Piece  $\frac{3}{8}$ " Drive Socket Set.

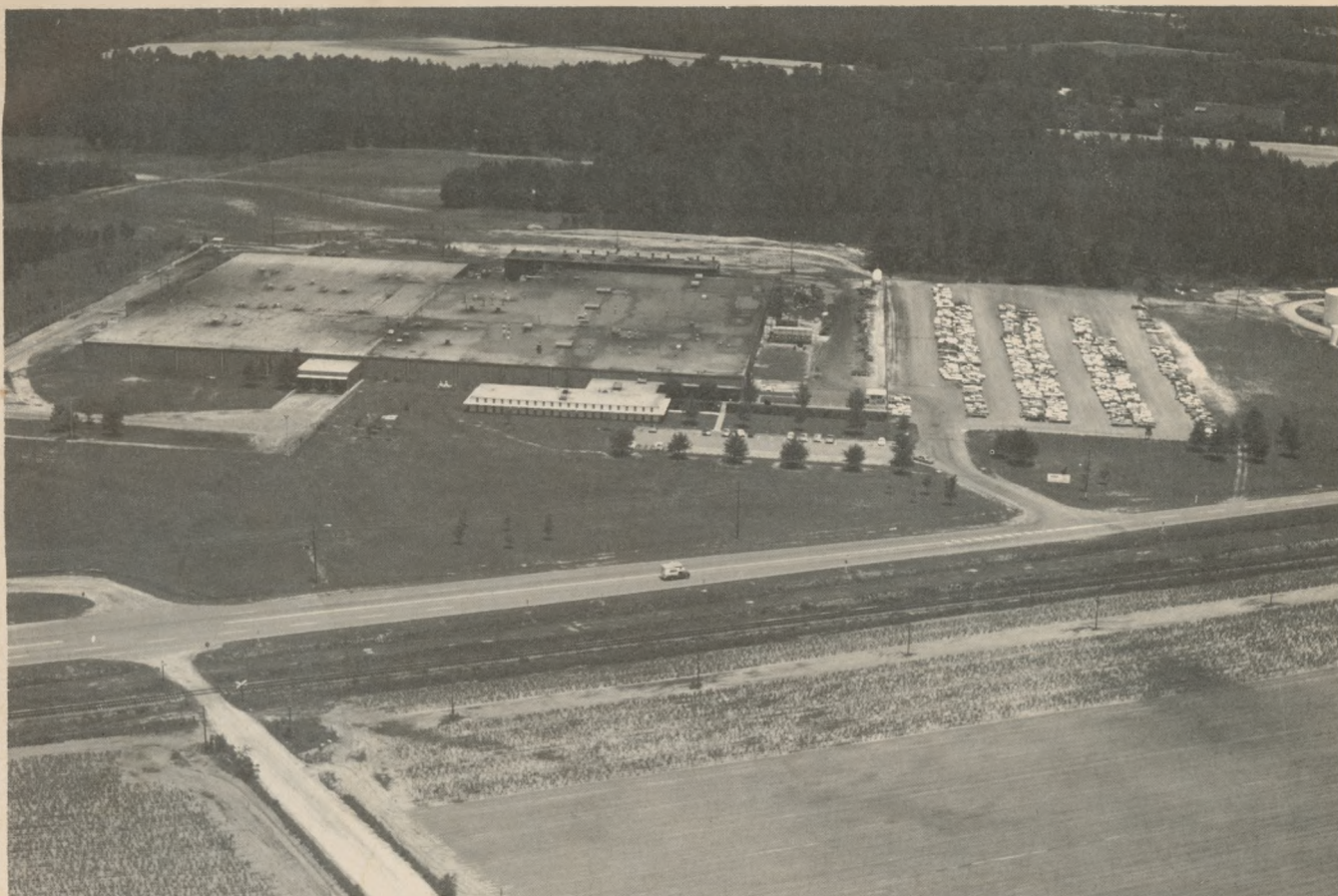
### TOOL BOX DISPLAY

#### Cat. No. 88320

Black enamel display sells tool boxes on sight. Takes little floor space. Puts 4 boxes where they can be seen and sold. Includes boxes: 81615-91, 81616-91, 81617-91, 81704-91. (88611 - display only)



# location



Utica's facility of 300,000 square feet houses manufacturing headquarters for pliers, sockets and

wrenches, drive tools, socket and wrench sets, torque products, special purpose tools and saw blades.

## HAND TOOLS FULL LIFETIME WARRANTY

Each product carrying the trademark UTICA® /BONNEY®, except torque products, is warranted by Utica Tool Co., Inc. for the normal life of the product to be free from any defect in material or workmanship.

Any product failing to conform with this warranty should be sent to Utica Tool Co., Inc., Cameron Road, Orangeburg, South Carolina 29115, Attention: Superintendent of Quality Control [or to the distributor of UTICA® /Bonney® tools nearest you]. If inspection reveals that the product does not conform with this warranty, the product will be repaired or replaced, at the option of Utica Tool Co., Inc., without charge within 10 days of receipt of the product by Utica Tool Co., Inc.

This warranty does not extend to torque products or to any product which has been altered or abused.

ALTERATION: grinding, filing, heating, welding or other modification.

ABUSE: improper or unreasonable use, as hand sockets used with an impact gun; use of "cheaters" producing excessive leverage; hammering upon non-striking face tools.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.







DISTRIBUTED BY

